THE

EARTH AND ITS INHABITANTS.

ASIA

BY

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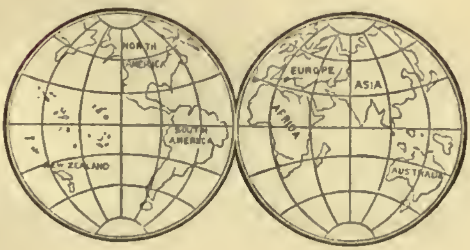
VOL. II.

EAST ASIA:

CHINESE EMPIRE, COREA, AND JAPAN.



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THE EARTH AND ITS INHABITANTS.

EAST ASIA.

CHINESE EMPIRE, COREA, JAPAN.

CHAPTER I.

GENERAL SURVEY.

THE natural divisions of the Asiatic continent are drawn in bold lines. We have seen that the vast Russian domain comprises the Aralo-Caspian depressions and the northern slopes of the mountain systems, which stretch from the Alaï and Tian-shan to the Manchurian coast ranges. Southwards and westwards, the two Indian peninsulas, the Iranian plateau, Asia Minor, and Arabia are no less clearly defined by snowy barriers, great inlets and seas. In the east, also, China, with Corea and the neighbouring archipelagos, forms, so to say, a world apart, enclosed by an amphitheatre of plateaux and highlands with a total frontier-line of 6,000 miles. From Manchuria to Indo-China, the Shanyan-alin, the Dûs-alin, the Khingan, the Kenteï, the Tannu-ola and Ektag Altaï, the Tian-shan, the Tsûng-ling, the Himalaya, the rugged hills pierced by the rivers of Transgangetic India, form together a continuous semicircle round about that portion of the Asiatic continent which now constitutes the Chinese Empire. Japan has taken the name of the "Land of the Rising Sun;" but relatively to the rest of the Old World China also faces eastwards. Its general slope, as indicated by the course of its rivers, is towards the Pacific Ocean. From the peoples of the West, China and Japan have rightly received the name of the extreme East, an expression also extended to Indo-China, the Philippines, and Malaysia.

East and West contrasted.

Compared with Western Asia, and especially with Europe, which may in certain respects be regarded as a group of peninsulas belonging to Asia, the eastern regions of the continent enjoy certain privileges, but have also some great disadvantages as lands of human culture. The most striking contrast between East and West is presented by their respective seaboards. In Asia Minor and Europe the coast lands are cut up into numerous peninsulas, forming secondary groups in the Mediterranean and Atlantic waters. The peninsulas are moreover prolonged by archipelagos, or the coasts fringed with islands; so that Europe has by Carl Ritter and others been compared to an organized body well furnished with limbs. This continent seems, so to say, endowed with life and motion beyond the dead mass of the Old World. But China cannot boast of such a surprising diversity of outlines. From the shores of Manchuria to those of Cochin China one important peninsula alone, that of Corea, is detached from the continental mass, while the land is penetrated only by one gulf deserving the name of sea—the Hoang-haï. The Pacific waters are here doubtless animated by two large islands, Formosa and Hainan, and by the magnificent Archipelago of Japan. But how insignificant are these peninsulas and islands of Eastern Asia compared with the Cyclades and Sporades, Greece and Italy, the British Isles, Scandinavia, and the whole of Europe, itself a vast peninsula everywhere exposed to the moist and warm sea breezes!

The high degree of culture attained by the Chinese people cannot therefore be explained by any exceptional advantages in peninsular or island formations. But here the absence of marine inlets has been partly supplied by the great rivers. If the Chinese seaboard proper presents but few deep indentations, the great streams of navigable water by which the land is irrigated, and by whose ramifications and canals it is divided into inland islands and peninsulas, give it some of the advantages in water communication enjoyed by Europe. Here the Yang-tze-kiang and Hoang-ho replace the Ægean and Tyrrhenian Seas, and like them have served to develop and diffuse a common civilisation. Formerly China had another advantage in the possession of the largest extent of productive land held under one social system in a temperate climate. North America and Europe, which at present possess an equal extent of such territory, were till recently still covered by forests which had to be laboriously cleared. In China is found that vast stretch of "Yellow Lands" which forms pre-eminently an agricultural region, and where were naturally developed those peaceful habits which are acquired by the pursuits of husbandry. To this region are attached other arable lands possessing a different soil and climate, with corresponding animal and vegetable forms, and thus it came about that civilised life encroached step by step on the vast domain stretching from the Mongolian wastes to the shores of the Gulf of Tonkin. These conditions admitted of much variety in cultivating the land, and thus was trade developed between the different provinces. All partial improvements reacted beneficially on the whole land, and the general civilisation was easily promoted amongst the Chinese themselves and in the neighbouring countries. Comparing East Asia with the Western world,

THE YANG-TZE-KIANG—MITAN GORGE.

we see how greatly China proper differs from Europe in its geographical unity. From the yellow lands of the north to the plains traversed by the Yang-tze on the Indo-Chinese frontier the people had a common centre of gravity, and their civilisation was consequently developed more rapidly in that "Flowery Land," whence it was carried later on to Japan and Formosa. But how much more distinct and individual has been the growth of culture in the various regions of the West, from Asia Minor to Great Britain and Ireland! Greece cut off from the rest of Europe by mountain ranges still imperfectly explored; Italy so sharply limited by its Alpine barrier; the Iberian peninsula even more completely shut out by the almost impassable Pyrenees; France with its twofold drainage to the Atlantic and Mediterranean; the British Isles washed by warm seas and wrapped in fogs, all form so many geographical units, each of which had to develop its special civilisation before a higher culture could be formed, in the production of which all the European nations took part. Without being insurmountable, the natural obstacles between the various countries of Europe are greater than between the different provinces of East China, and it was these very obstacles which, by preventing political centralization while permitting mutual intercourse, have fostered the individual energies of the Western races and made them the teachers of the rest of mankind.

Isolation of China.

But if the communications were easy between the north and south of China, and if the inhabitants of the mainland could without much difficulty cross the narrow seas separating them from Formosa and Japan, the East Asiatic world seemed, on the other hand, almost entirely shut in from the West. In prehistoric times the forefathers of the Chinese, Hindus, Chaldæans, and Arabs must no doubt have been close neighbours, maintaining frequent relations with each other; for these various peoples have inherited the same astronomic conceptions, while the coincidences of observation and views may be traced even in their details. But these mutual relations, explaining a common civilisation, can only have taken place at a period of greater humidity in the Old World, when the now dried-up desert regions of Central Asia enabled the populations to communicate more freely together. At that time the Tarim basin, now hemmed in by the sands, still belonged to the Aryan world, and the civilisation of its inhabitants was allied to that of India. Since the nations grouped on either slope of the Pamir were compelled to advance farther down to the plains, leaving a broader zone of deserts and steppes between them, the centres of civilisation have been removed to greater distances from each other. That of China has gradually approached the Pacific, while an analogous movement has been going on in an inverse direction west of Babylonia towards Asia Minor and Greece. After these centres thus became isolated, no commercial intercourse or exchange of ideas could take place for long ages between the eastern and western extremities of the continent. Distant rumours alone kept up the common traditions of other nations dwelling beyond the rivers and lakes, the plateaux, highlands, forests, and deserts, and the inhabitants of those remote

regions were in the popular imagination transformed to strange and terrible monsters. The two civilisations were independently developed at either extremity of the continent without exercising any mutual influence one on the other, following parallel lines, yet as distinct one from the other as if they had been born on two different planets. There was undoubtedly a time when South China had even more frequent relations with the scattered islands of the South Sea than with the western regions with which it is connected by an unbroken continental mass. Common physical traits prove that towards the south the Chinese race has been intermingled with the tribes peopling the oceanic regions.

Nevertheless, the barrier of plateaux and highlands shutting in the Chinese world offers here and there some wide gaps, some opening towards the south, others in the direction of the north. Nor are the snowy ranges themselves inaccessible. Altaï, Tian-shan, Tsûng-ling, Kuen-lun, Nan-ling, are all crossed by tracks, over which the trader makes his way regardless of fatigue and cold. The slopes of these uplands, and even the plateaux, are inhabited to an elevation of from 10,000 to 15,000 feet, and traces of the permanent or passing presence of man are everywhere met along the route. But owing to their barbarous lives and rude political state these highland populations added a fresh obstacle to that presented by the physical conditions to free international intercourse. The unity of the Old World was finally established when the Europeans of the West, by means of the sea route, established direct relations with the peoples of the eastern seaboard. But before that time direct communications even between the Yang-tze and Amur basins across the barbarous populations of the intervening plateaux took place only at rare intervals, and were due as much to the great convulsions of the Asiatic peoples as to the growing expansive power of the Chinese political system. But such rare and irregular international movements had but little influence on the life of the Chinese nation. For thousands of years this race, being almost completely isolated from the rest of mankind, was thrown back on its own resources in working out its natural development.

Intercourse with India and Europe.

The first great internal revolution of China took place at the time of the introduction of the Indian religious ideas. However difficult it may be to interpret the ancient doctrine of Lao-tze, there can be scarcely any doubt that it was affected by Hindu influence. Some of his precepts are identical in form with those of the sacred writings of the Buddhists, and all are imbued with the same sentiment of humanity and universal philanthropy. Nor does Lao-tze ever cite the leading characters of Chinese history as models of virtue or as examples to be followed, so that the body of his doctrines is associated by no traditional ties with the past annals of his country. According to the unanimous tradition he travelled in the regions lying to the west of China, and the popular legend points to the Khotan highlands as the place whence he was borne heavenwards.

The barrier raised by the mountains, plateaux, and their barbarous inhabitants between China and India was so difficult to be crossed that the communications

between the two countries were effected by a détour through the Oxus basin. The Buddhist religion itself was not propagated directly, and penetrated into the empire not from the south, but from the west. During the periods of its peaceful expansion China included the Tarim basin, and maintained free intercourse with the Oxus basin over the Pamir passes. At that time traders followed the famous "Silk Highway," which was also known to the Greeks, and it was by this or other routes across the plateaux that were introduced the rich products of Southern Asia, as well as the more or less legendary reports of the marvellous region of the Ganges. The same road was also followed by the Buddhist pilgrims. After three centuries of religious propaganda the new faith was finally established in the country of Confucius, and received official recognition in the sixty-fifth year of the new era. Buddhism found favour with the Chinese people from its pompous rites, the rich ornaments of its temples, the poetry of the symbolic lotus blooming in the midst of the waters. It also pleased them, because it opened up vistas of those magnificent Southern lands hitherto concealed from their gaze by the intervening snowy ranges and plateaux. But after all the *Fo-Kiao*, or worship of Buddha, changed little in the social life of China. The ceremonial was modified, but the substance remained much the same. Whatever be the sacred emblems, the religion that has survived is still that which is associated with the rites in honour of ancestry, with the conjuring of evil spirits, and especially with the strict observance of the old traditional formulas.

But at any rate the relations established between China and Hindustan during the period of Buddhist propagandism were never again completely interrupted, and from that time China has no longer remained, even for Europeans, excluded from the limits of the known world. Communication by sea was kept up between India and South China, especially through the Gulf of Tonkin. Even two hundred years before the vulgar era an emperor had sent a whole fleet to the Sunda Islands to cull the "flower of immortality." Later on, other vessels were sent to Ceylon in search of relics, sacred writings, statues of Buddha, and besides these things brought back rich textiles, gems, precious stones, taking them in exchange for their silks, porcelains, and enamelled vases. This route was also followed by the embassies, amongst others by that which, according to the Chinese annals, came from the great Tsin; that is to say, from Rome, sent by the Emperor An-tun (Aurelius Antoninus) in the year 166 of the Christian era.

In the seventh century, when the Chinese Empire, after a series of disasters and internal convulsions, resumed its expansive force and shone with renewed splendour, at the very time when Europe had again lapsed into barbarism, exploring expeditions became still more numerous. China now took the lead, and the pilgrim, H'wen-Tsang, whose itinerary in Central Asia has since been rivalled only by Marco Polo, was a true explorer in the modern sense of the term. His writings, embodied in the annals of the Tang dynasty, have a special value for the geography of Central Asia and India in mediæval times, and their importance is fully appreciated by European savants. Thanks to the Chinese documents, it has been found possible to determine with some certainty the whole of his itinerary, even in those

"Snowy Mountains," where travellers are exposed to the attacks of the "dragons," those mystic animals which may possibly symbolize nothing more than the sufferings entailed by snow and ice. Like the other Buddhist pilgrims of this epoch, H'wen-Tsang skirted the Tibetan plateaux, where the Buddhist religion had only just been introduced, and reached India through the Oxus valley and Afghanistan. But some twenty years after his return, in 667 or 668, Chinese armies had already traversed Tibet and Nepal, thus penetrating directly into India, where they captured over six hundred towns. At this time the Chinese Empire comprised, with the tributary states, not only the whole depression of Eastern Asia, but also all the

Fig. 1.—Itinerary of H'wen-Tsang.

Scale 1 : 30,000,000.

0 to 10,000 Feet. 10,000 to 16,500 Feet. 16,500 Feet and upwards.

600 Miles.

outer slopes of the highlands and plateaux surrounding it as far as the Caspian. It was also during this period that the Nestorian missionaries introduced Christianity into the empire.

The progress of Islam in the west of Asia and along the shores of the Mediterranean necessarily isolated China, and long rendered all communication with Europe impossible. But in the northern regions of the Mongolian steppes warlike tribes were already preparing for conquest, and thanks to their triumphant march westwards to the Dnieper, they opened up fresh routes for explorers across the whole of the Old World. In order to protect themselves from these northern children of

the steppe, the Chinese emperors had already raised, rebuilt, and doubled with parallel lines that prodigious rampart of the "Great Wall" which stretches for thousands of miles between the steppe and the cultivated lands of the south. Curbed by this barrier erected between two physically different regions and two hostile societies, the nomads had passed westwards, where the land lay open before them, and the onward movement was gradually propagated across the continent. In the fourth and fifth centuries a general convulsion had hurled on the West those conquering hordes collectively known as Huns; in the twelfth century an analogous movement urged the Mongols forward under a new Attila. Holding the Zungarian passes, which gave easy access from the eastern to the western regions of Asia, Jenghiz Khan might have at once advanced westward. But being reluctant to leave any obstacle in his rear, he first crossed the Great Wall and seized Pekin, and then turned his arms against the Western states. At the period of its greatest extent the Mongolian Empire, probably the largest that ever existed, stretched from the Pacific seaboard to the Russian steppes.

The existence of the Chinese world was revealed to Europe by these fresh arrivals from the East, with whom the Western powers, after the first conflicts, entered into friendly relations by means of embassies, treaties, and alliances against the common enemy, Islam. The Eastern Asiatic Empire was even long known to them by the Tatar name of Cathay, which under the form of Kitai is still current amongst the Russians. Envoys from the Pope and the King of France set out to visit the Great Khan in his court at Karakorum, in Mongolia; and Plan de Carpin, Rubruk, and others brought back marvellous accounts of what they had seen in those distant regions. European traders and artisans followed in the steps of these envoys, and Marco Polo, one of these merchants, was the first who really revealed China to Europe. Henceforth this country enters definitely into the known world, and begins to participate in the general onward movement of mankind.

Marco Polo had penetrated into China from the west by first following the beaten tracks which start from the Mediterranean seaboard. Columbus, still more daring, hoped to reach the shores of Cathay and the gold mines of Zipango by sailing round the globe in the opposite direction from that taken by the great Venetian. But arrested on his route by the New World, he reached neither China nor Japan, although he long believed in the success of his voyage to Eastern Asia. But others continued the work of circumnavigation begun by him. Del Cano, companion of Magellan, returned to Portugal, whence he had set out, thus completing the circumnavigation of the globe. All the seas had now been explored, and it was possible to reach China by Cape Horn as well as by the Cape of Good Hope. Notwithstanding the determined opposition of the Pekin Government to the entrance of foreigners, the empire was virtually open, and within two hundred and fifty years of this event China and Japan, which had never ceased to be regularly visited by European traders, were obliged to open their seaports, and even to grant certain strips of land on their coast, where the Western nations have already raised cities in the European taste. The conquest may be said to have already begun.

Foreign Influence—Russian Encroachments.

The power of the Western states has even made itself felt by the temporary occupation of the Chinese capital and the sack of the imperial palaces. It has been revealed still more by the support given by the English and French allies to the Chinese Government against internal revolt. Whilst the European troops were storming the Peï-ho forts, occupying Tientsin, and driving the Emperor from Pekin, other Europeans were arresting the Taïping rebels at the gates of Shanghai and barring their approach to the sea. At the same time the Russians kept a garrison

Fig. 2.—Encroachments of Asiatic Russia on China.

Scale 1 : 30,000,000.

Chinese territory, according to the Treaty of Nerchinsk.

Territory held by China before the annexation to Siberia.

600 Miles.

in Urga to curb the Dungâns, and it was probably this intervention of the Western powers that saved the Tsing dynasty. The integrity of the empire was upheld, but only because the Europeans were interested in its maintenance. By merely folding their arms China would probably have been split into two, if not three or four, fragments. No doubt its unity seems at present unexposed to danger from the west, but on its northern frontier Russia is continually gathering strength, and is already conterminous with it for a distance of nearly 5,000 miles, more than half of this line running through countries formerly subject to the "Children of Heaven." The temporary and permanent annexations of Russia in Kulja belonged till recently to China, and the same is true of Transbaikalia and the whole Amur

valley as far as the reindeer pastures of the Northern Tunguses. At present all the region along the left bank, larger than the whole of France, forms an integral part of Siberia. Lastly, the Manchurian seaboard as far as the Corean frontier has become Russian, and its southern ports, distant two days by steam from Japan, stand on waters now known as the Gulf of Peter the Great, as if to remind the world that the empire of the Czars is as aggressive in the east as in the west. At the slightest diplomatic imbroglio, or whenever the dignity of Russia may require her to make a military promenade in the Chinese waters, she may easily seize the most convenient port on the Corean coast, and here found a naval arsenal still more formidable than that of Vladivostok, commanding at once the entry to the Sea of Japan, the mouth of the Yang-tze, and the inland Japanese waters. Notwithstanding the financial embarrassment of the Government, the periodical famine and droughts, and the abject misery of the masses, the resources of the State are still disposed in such a way as to give her great power for aggressive purposes. Her military strength, even 5,000 miles from the capital, is superior to that of China and Japan in their own domain. In spite of its stockades and forts armed with steel guns, Pekin is probably as much at the mercy of Russia as it recently was of the English and French allies. Its position is extremely exposed. So long as it had nothing to fear except from Mongolian inroads or local revolts it held an excellent strategical position near the fortified ranges protecting it from the north, not far from the Great Canal whence it drew its supplies, and at no great distance from the Manchu tribes, ever ready at the first signal to hasten to the succour of their threatened fellow-countrymen. But the security of the empire may now be menaced by far more formidable enemies than Mongolian nomads or Taïping fanatics, and in case of a Russo-Chinese war the troops of the Czar would no doubt land near the capital. Notwithstanding the recent military equipments and improved discipline, the army of the "brave and ever victorious" could scarcely hope for success so long as the State refuses to place a railway system at its service. But this innovation may soon be introduced, while a change of system and well-chosen alliances might also bring about a shifting of equilibrium in the respective forces of the two empires.

Rivalry of the Eastern and Western Races.

But whatever be the political and military destinies of China and Japan, the concert of the Eastern and Western nations is henceforth an accomplished fact. Through the interchange of produce, the travels of Europeans in the Mongolian world, of Chinese and Japanese in Europe and America, and permanent migrations, the various civilisations have been brought into mutual contact. What arms have failed to do is being far more efficaciously accomplished by free commercial intercourse; nor can further advances be any longer prevented by political frontiers, diversity of speech, traditions, laws, and customs. While European quarters are springing up in the cities of China and Japan, Chinese villages are appearing in the United States, Peru, and Australia; and Chinese counting-houses have

already been opened in London and New York. To these outward signs correspond profound internal modifications. There is an interchange of ideas as well as of commodities, and the peoples of the East and West begin to understand each other, and consequently to perceive how much they have in common. The world has become too narrow to allow of any further isolated evolutions of culture in separate geographical areas without blending in a general civilisation of a higher order. The European and Asiatic races formerly dwelt altogether apart; now the United States of America have been peopled by emigrants who have made this region another Europe; and thus it is that the Chinese nation now finds itself hemmed in between two Europes—those of the Old and New Continents. From east and west come the same types and ideas, and a continuous current sets from people to people around the globe, across seas and continents.

The historic period on which mankind is now entering, through the definite union of the Eastern and Western worlds, is pregnant with great events. As the ruffled surface of the water seeks its level by the force of gravity, so the conditions tend to balance themselves in the labour markets. Considered merely as the owner of a pair of hands, man is himself as much a commodity as is the produce of his labour. The industries of all nations, drawn more and more into the struggle for existence, seek to produce cheaply by purchasing at the lowest price the raw material and the "hands" to work it up. But where will manufacturing states like those of New England find more skilful and frugal—that is, less expensive—hands than those of the extreme East? Where will the great agricultural farms, like those of Minnesota and Wisconsin, find more tractable gangs of labourers, more painstaking and less exacting, than those from the banks of the Si-kiang or Yang-tze? Europeans are amazed at the industry, skill, intelligence, spirit of order, and thrift displayed by the working element in China and Japan. In the workshops and arsenals of the seaports the most delicate operations may be safely intrusted to Chinese hands; while eye-witnesses bear unanimous testimony to the superior intelligence and instruction of the peasantry over the corresponding classes in Europe. If the Chinese gardeners have not modified their system in the neighbourhood of the coast factories, it is only because they have had nothing to learn from the stranger.

The struggle between white and yellow labour—a struggle which threatens to set the two hemispheres by the ears—has even already begun in certain new districts where European and Asiatic immigrants meet on common ground. In California, New South Wales, Queensland, and Victoria the white labourers have had to compete in most of their trades with the Chinese, and the streets, workshops, farms, and mines have been the scenes of frequent bloodshed, occasioned less by national hatred than by international rivalry in the labour market. Continued over a whole generation, this social warfare has already cost more lives than a pitched battle: it even increases in virulence as the competition grows more fierce. Hitherto the white element has had the best of it in California and Australia. With large majorities in the legislatures, they have triumphed over the manufacturers, farmers, and contractors, whose interest it is to secure cheap labour; and they

have passed laws throwing difficulties in the way of Chinese coolie immigration, constituting this element a distinct and oppressed class, without rights of citizenship. But such warfare cuts both ways. Vanquished in one quarter, the Chinese workmen may prevail in another with the aid of the capitalists and legislative bodies; and the free admission of Chinese hands into the workshop would ultimately involve the extinction of their white rivals. The Chinese immigrants need not even gain access to the European and American factories in order to lower the rate of wages generally. It will suffice to establish cotton, woollen, and similar industries throughout the East, the products of which might soon compete successfully with the local manufactures in the West. Hence, from the economic point of view, the definite concert of the Mongolian and white races involves consequences of supreme importance. The balance will doubtless be ultimately established, and humanity will learn to adapt itself to the new destinies secured to it by a common possession of the whole world. But during the transition period great disasters must be anticipated in a struggle in which upwards of a billion of human beings will be directly engaged. In point of numbers the civilised element in Europe and America is about equal to that of East Asia. On either side hundreds of millions stand arrayed against each other, impelled by opposing interests, and incapable as yet of understanding the higher advantages of a common human concert.

For the antagonism of East and West flows as much from the contrast of ideas and morals as from the opposition of immediate interests. Between the moral standards of Europeans and Chinese, both of whom have a certain personal self-respect, the ideal is not the same, and their conception of duty, if not contradictory, is at least different. This moral contrast reappears, in a more or less conscious form, in the nations themselves. It will, however, doubtless be partly neutralised by intercourse, instruction, and, here and there, by intermixture. The civilisations will be mutually influenced, not only in their outer aspects, but also in their tendencies, and the very ideas which are their true controlling force. It has often been remarked that Europeans look forward, while the Chinese look backward; but the statement is too general, for society is everywhere decomposed into two groups—one continually renewed by ceaselessly striving to improve its destinies; the other, through fear of the future, falling back on tradition. The frequent civil wars in China, and notably the recent insurrection of the Taïpings, or "Great Pacifiers," show that beneath the official world, wedded to the old ways and seeking its golden age in the past, there seethes a fiery element which does not fear the risk of facing the unknown. If the Chinese Government has for ages succeeded in holding fast by the traditional forms, if the disasters of Tatar conquest and intestine convulsions have but slightly affected the outward framework of society, it is none the less true that the Eastern world will now have to learn from European civilisation not only new industrial methods, but especially a new conception of human culture. Its very existence depends upon the necessity of shifting its moral stand-point.

Future Prospects.

But it may be asked, Will not the ideal of the cultured white races be also shifted? When two elements come together, both are simultaneously modified; when two rivers mingle their streams, the limpid waters of the one are troubled by the turbid elements of the other, and neither ever again recovers its primitive condition. Will the contact of these two civilisations in the same way result in raising the one and lowering the other? Will the progress of the East be attended by a corresponding retrograde movement in the West? Are coming generations destined to pass through a period like that of mediæval times, in which Roman civilisation was eclipsed, while the Barbarians were born to a new light? Prophets of evil have already raised a cry of alarm. After spending years in the interior of China, travellers like Richthofen, Armand David, Vasilyev, have returned full of terror at those formidable multitudes swarming in the vast empire. They ask themselves what these hosts may not do when disciplined and hurled by victorious leaders against the European world. May they not, under other conditions, renew the Mongolian invasions when, armed with the same weapons, but more united than the Western peoples, they will be marshalled by a second Jenghiz Khan? Fearing lest in the "struggle for existence" the Chinese may easily become our masters, certain writers have even seriously urged that the European powers should retrace their steps, close the ports already opened to commerce, and endeavour to confine the Chinese to their former seclusion and ignorance. Others are rejoicing that the Chinese nation are becoming sluggish under the influence of opium, which prevents it from recognising its own strength. "But for opium," says Vasilyev, "China would sooner or later overrun the whole world—would stifle Europe and America in its embrace."

But it is now too late to attempt to separate the East and West. With the exception of Tibet, Corea, and a few remote highlands, East Asia henceforth forms part of the open world. What will be the consequences for humanity of this accession of half a billion of human beings to the general movement of history? No more serious question can be asked. Hence too much importance cannot be attached to the study of the Far East and of the "yellow" races, which must one day play so great a part in the future development of human culture.

CHAPTER II.

THE CHINESE EMPIRE.

I.—TIBET.

BEYOND the "Middle Kingdom" the Chinese Empire embraces vast regions, with a joint area more extensive than that of China proper. It includes Tibet, the Tarim, and Kuku-nor basins, the upland valleys draining to Lake Balkhash, Zungaria, Mongolia, Manchuria, and the islands of Formosa and Hainan. It also claims as tributaries the Corean peninsula, and even, on the southern slope of the Himalayas, Nepal and Bhutan, lands which belong, at least geographically, to India. All these countries, while recognising the common supremacy of China, are severally distinguished by their physical features, the institutions and habits of their inhabitants. But none of them have, in recent times, so effectually repelled foreign influences as Tibet, which is still what China formerly was—an almost inaccessible land. In this respect it may be said to represent tradition, henceforth lost by most of the other East Asiatic states.

Nomenclature.

The name of Tibet is applied not only to the south-west portion of the Chinese Empire, but also to more than half of Kashmîr occupied by peoples of Tibetan origin. These regions of "Little Tibet" and of "Apricot Tibet"—so called from the orchards surrounding its villages—consist of deep valleys opening like troughs between the snowy Himalayan and Karakorum ranges. Draining towards India, these uplands have gradually been brought under Hindu influences, whereas Tibet proper has pursued a totally different career. It is variously known as "Great," the "Third," or "East Tibet;" but such is the confusion of nomenclature that the expression "Great Tibet" is also applied to Ladak, which forms part of Kashmîr. At the same time, the term Tibet itself, employed by Europeans to designate two countries widely differing in their physical and political conditions, is unknown to the people themselves. Hermann Schlagintweit regards it as an old Tibetan word

meaning "strength," or "empire" in a pre-eminent sense, and this is the interpretation supplied by the missionaries of the seventeenth century, who give the country the Italian name of *Potente*, or "Powerful." But however this be, the present inhabitants use the term *Bod-yul* alone; that is, "land of the Bod," itself probably identical with *Bhutan*, a Hindu name restricted by Europeans to a single state on the southern slope of the Himalayas.

The Chinese call Tibet either Si-Tsang—that is, West Tsang, from its principal province—or Wei-Tsang, a word applied to the two provinces of Wei and Tsang, which jointly constitute Tibet proper. To the inhabitants they give the name of Tu-Fan, or "Aboriginal Fans," in opposition to the Si-Fan, or "Western Fans," of Sechuen and Kansu. The Mongolians, in this imitated by the Russians of the last century, often called Tibet the Tangut country, from the tribes inhabiting its northern parts. But they more commonly gave it the name of *Baran-tola*, or "Right Side," in contrast to *Zegun-tola*, or "Left Side;" that is, the present Zungaria.

Physical Outlines.

Tibet forms almost exactly one-half of the vast semicircle of highlands which stretch with a radius of 480 miles west of China from the first Mongolian spurs of the Tian-shan to the gaps in the Eastern Himalayas, through which the Tsangbo, the Salwen, and Mekhong escape to the Indian Ocean. The lofty border range of the Kuen-lun divides this semicircle into two parts presenting striking contrasts with each other. In the north stretches the closed basin of the Tarim and several other streams which are lost in the sands. In the south rises the elevated tableland of Tibet. Thus the most massive plateau on the earth's surface rises close to one of the deepest depressions in the interior of the dry land.

Overlooking the irregularities of outline caused by its political frontiers, Tibet is, on the whole, one of the most clearly defined natural regions in the Old World. Resting towards the north-west on the broken masses intersected by the Ladak and Kashmîr valleys, it spreads out gradually towards the east and south-east between the main continental chains of the Kuen-lun and Himalayas. Like the Pamir, these two mighty ranges are regarded by the peoples dwelling at their base as "roofs of the world," and the "Abode of the Gods." They seem to form the limits of another world, to which its snowy diadem sparkling in the sun gives the appearance of an enchanted land, but which its few explorers learn to recognise as the region of cold, snow-storms, and hunger. Suspended like a vast terrace some 14,000 or 16,000 feet above the surrounding plains, the Tibetan plateau is more than half filled with closed basins dotted with a few lakes or marshes, the probable remains of inland seas whose overflow discharged through the breaks in the frontier ranges. But at a distance of about 700 miles from the highlands on its western frontier the Tibetan plateau is limited eastwards by a broken ridge running south-west and north-east. West of these mountains the plateau slopes east and south-eastwards, here branching into numerous chains with intervening river valleys. Yet on this side the plateau is even less accessible than elsewhere round its periphery. On the

eastern frontiers of Tibet travellers are arrested by the rugged gorges, the extensive forests, the absence of population, and consequently of supplies of all kinds, and to these obstacles is now added the ill-will of the Chinese authorities. During the present century the Tibetan Government has succeeded better than any other Asiatic state in preserving the political isolation of the people, thanks chiefly to the relief and physical conditions of the land. Tibet rises like a citadel in the heart of Asia; hence its defenders have guarded its approaches more easily than those of India, China, and Japan.

Exploration—Extent—Divisions.

The greater part of Tibet remains still unexplored, or at least geographers have failed to trace with certainty the routes of the Roman Catholic missionaries who traversed the land before their entry was interdicted. In the first half of the fourteenth century the Friuli monk, Odorico di Pordenone, made his way from China to Tibet, and resided some time in Lassa. Three centuries later on, in 1625 and 1626, the Portuguese missionary Andrada twice penetrated into Tibet, where he was well received by the Buddhist priests. In 1661 the Jesuits Grüber and D'Orville travelled from China through Lassa to India. In the following century the Tuscan Desideri, the Portuguese Manoel Freyre, and others visited the Tibetan capital from India. But the Capuchins had already founded a Catholic mission in Lassa under the direction of Orazio della Penna, who spent no less than twenty-two years in the country. At this time the Tibetan Government allowed strangers to penetrate freely over the Himalayan passes, which are now so jealously guarded. A layman also lived several years in Lassa, whence he went to China by the Kuku-nor, again returning *viâ* Lassa to India. This was the Dutch traveller Van de Putte, who is known to have been a learned man and a great observer, but who unfortunately destroyed his papers and charts, fearing lest these ill-arranged and misunderstood documents might be the means of propagating error. He left nothing behind him except a few notes and a manuscript map, carefully preserved in the Middelburg Museum in Zealand.

Itineraries traced either astronomically or by the compass and chronometer are still very rare. The English explorers and the Hindu surveyors employed by the Indian Government have only visited the south-western districts, and the upland basin of the Tsangbo north of Nepal and Sikkim. South-east Tibet has been traversed by French missionaries; but all the recent attempts made to penetrate from the north and north-east have failed. In imitation of Paskievich the "Transbaikalian," and Muraviov the "Amûrian," the brothers Schlagintweit have assumed the whimsical title of "Transkuenlunian" (in Russian, Zakuenlunskiy), to perpetuate the memory of their passage over the Tibetan mountains; but they only visited the western extremity of the country. The Russian explorer Prjevalsky was compelled twice to retire without being able to penetrate into the heart of the country, and the Hungarian Bela Szechenyi also found himself obliged to retrace his steps. For all the regions not yet visited by the English and Hindu

surveyors the present maps of Tibet are merely reproductions of the chart drawn up by the illustrious D'Anville, and based on the surveys made under the Emperor Kang-hi by the Tibetan lamas trained by the astronomers of the Society of Jesus. Nevertheless a solid beginning for future research has already been made, thanks to the geodetic works undertaken in the Himalayas. In 1877 the engineer Ryall even obtained permission to penetrate into the Upper Satlaj valley in order to survey the peaks from their northern base, and all the summits visible from this valley have been comprised in his triangulation. Within the approximate limits indicated on the present maps, which will have doubtless to be modified in all their details, the area of Tibet, including the Kuku-nor basin, is provisionally estimated

Fig. 3.—Itineraries of the Tibetan Explorers.

Scale 1 : 22,000,000.

Bogle, Turner, Manning, Pemberton, Hooker, Eden. — 10,000 to 16,000 Feet. — 16,000 and upwards. — Pundits.

Prjevalsky. — Schlagintweit. — Desgodins. — Gill. — Johnson — Huc and Gabet.

600 Miles.

at 680,000 square miles, or somewhat more than three times that of France. But if we include several independent neighbouring districts, often regarded as belonging to Tibet, and all the tracts peopled by men of Bod stock in Kashmîr and the Chinese province of Sechuen, the total area will exceed 800,000 square miles.

Excluding the western highlands belonging politically to Kashmîr, Tibet proper comprises three natural divisions—the northern lacustrine plateaux; the southern upland valleys, where the Satlaj and Tsangbo flow in opposite directions along the northern base of the Himalayas; and South-east Tibet, cut up into divergent basins by its flowing waters.

The Kuen-lun Range.

The northern region, the largest in extent, but by far the most thinly peopled, consists of all the closed basins limited southwards by the eastern prolongation of the Karakorum, and resting northwards on the mighty Kuen-lun range. This border chain of the plateau, separating Tibet from the Tarim basin, should be regarded, far more than the Himalayas, as forming part of the continental backbone. It continues the Hindu-Kush east of the Pamir, while connecting itself directly with the "diaphragm" of Western Asia. It thus constitutes the eastern half of the main continental water-parting, which runs west and east irregularly, now skirting the plateaux in the form of border chains, now breaking into parallel or slightly divergent ridges, occasionally even developing into distinct mountain systems. The Kuen-lun and its eastern continuation into China do not apparently present greater uniformity as the Central Asiatic axis than do the ranges of the western "diaphragm." But the orography of Tibet and China is still too imperfectly known to allow us to speak with certainty on this point.

Regarding the Kuen-lun with its eastern prolongations as forming one vast system, its total length, from its roots in the Pamir to its extreme spurs between the Hoang-ho and Yang-tze-kiang, may be estimated at about 2,400 miles. But this orographic system is broken into a great number of chains by frequent gaps, changes of direction, intersections, and displacements of all sorts. The highlands to which the term Kuen-lun was applied in the early periods of Chinese history form a group of magnificent mountains rising near the sources of the Hoang-ho; but this mass can scarcely be regarded as the central nucleus of the system to which geographers have subsequently extended the name. With the progress of geographical knowledge westwards, the term Kuen-lun (Kul-kun, Kur-kun) also advanced in the same direction. It is now applied to the range by the old Hindu immigrants from Kashmîr called Aneûta, from the Sanskrit *Anavatapta*; that is, the "Unillumined," the mountain of cold and gloom, synonymous with the Tatar name, Karangui-tagh, or the "Dark Mountain."

The Kuen-lun has apparently no peaks as high as the highest in the Himalayas, or even in the Karakorum range. Johnson, Prjevalsky, Montgomerie, and Richthofen are of opinion that none of them attain an elevation of 23,000 feet, although beyond Tibet a few summits between Kashmîr and Yarkand exceed 24,000 feet. Towards the sources of the Cherchen-daria stands the Tuguz-davan, where the Kuen-lun proper throws off various spurs and terraces, which fall gradually towards the depression formerly filled by the Central Asiatic Mediterranean Sea. The northernmost ridge is the so-called Altin-tagh, or "Gold Mountains," whose spurs advance to the neighbourhood of the Lob-nor. South of this ridge, which is about 13,000 feet high, there stretch two other parallel chains, besides the main range which continues its normal easterly direction to the Gurbu-naïji, near the sources of the Yang-tze-kiang. The Mongolians of the Chaïdam plains say that this system is continuous, and that many of its peaks rise above the snow-line.

Although inferior to the Himalayas in the elevation of its chief summits, the

Kuen-lun surpasses them in mean altitude, and is also of a much older date. Belonging to a geological epoch anterior to the existence of the Himalayas, its crests have naturally been gradually weathered, and the detritus spread by the action of wind and water over the surrounding plateaux and lowlands. In his journey across all the crests separating the Indus and Tarim basins, Stoliczka found that the oldest rocks of this region belong to the Kuen-lun. They consist mainly of syenitic gneiss, and the most recent deposits are triassic, whereas the Himalayan and Karakorum systems comprise the whole series between the palæozoic and eocene formations. It is generally admitted that the Kuen-lun is the original folding of the plateau, and that the southern ranges are of more modern date.

Recent observation, as well as the climatic conditions, show that on the whole the Kuen-lun lacks the variety and sublimity of forms characteristic of the Himalayas. With less jagged crests and fewer fissures, it rises above the narrow oases at its base and the Gobi sands like a long rampart, here and there speckled with snow. Notwithstanding its greater mean elevation, it cannot be compared with the Himalayas for the abundance of its ice and snow fields. Still, according to the Chinese documents, there are some real glaciers in its eastern section, as well as immediately east of the upland Kara-kash valley. The hollows of the plateau are also filled with motionless ice, and thermal springs give rise to frozen masses which spread over a vast surface. The northern winds, to which the range is exposed, have already been deprived of most of their moisture on their way across North Asia, while those from the Indian Ocean discharge nearly all their rains and snows on the Himalayas, and the other chains of Bhutan and South Tibet. Thus the atmospheric currents reaching the Kuen-lun are very dry, and the streams rising in the upper valleys are mostly of small volume, losing themselves in the sands and marshes on either side of the range.

The western extremity of the chain north of Kashmîr abounds far more in running waters than the Kuen-lun proper. Here the crests and the plateau above which they rise are much narrower than in Tibet, and the ice and snows are extensive enough to form, on the northern slope of the Karakorum, considerable streams, which escape through the fissures in the Kuen-lun down to the Khotan and Kashgarian plains. Thus the Yarkand, already a large river, crosses the south-eastern Pamir at the point where the projecting spurs of the Hindu-Kush and Kuen-lun almost meet. Farther east, a defile 1,000 feet deep in the latter chain affords an outlet to the Kara-kash, the chief affluent of the Khotan. This river itself rises well to the south of the Kuen-lun, through an opening in which it forces a passage after a long winding course in a side valley. But east of the Khotan the Cherchen-daria is the only river north of the Tibetan plateaux which has sufficient volume to form with its affluents a stream large enough to flow to any distance across the plains. However insignificant they may now be, these rivers have in the course of ages accomplished vast works of erosion, by hollowing out the approaches from the Tibetan tablelands down to the Tarim depression. In some places the fall is so gradual along these streams that the incline does not

exceed that of ordinary routes in highland regions. According to the natives of Khotan, it would even be possible to cross the Kuen-lun in a carriage. One of Montgomerie's Hindu surveyors easily reached the western Tibetan plateau by following the Kiria valley to an altitude of over 16,000 feet. The plateau is approached by other passes from the east, for the Zungarians have frequently

Fig. 4.—Upper Kara-kash Valley.

invaded Tibet by crossing the steppes and deserts stretching south of the Lob-nor. The Mongolian pilgrims follow this route on their way to Lassa.

The Province of Khachi—Lacustrine System.

The North Tibetan tableland, mostly inhabited or visited only by nomad tribes, still remains the least-known upland region in the Chinese Empire. The Tibetans themselves are acquainted only with the southern districts of this bleak and storm-swept land, roamed over by Mongolian and Tatar nomads, who choose for their camping grounds the *sang*, or sheltered pastures resembling the *pamirs* of the

plateau between the Oxus and Tarim basins. The Tatar tribes, collectively known as *Hor* or *Khor*, dwell in the western and southern districts. Elsewhere live the *Sok*, or Mongolian nomads, who have named nearly all the lakes and mountains in North-east Tibet. They mostly practise Shamanistic rites, although the Tibetan collective name of all these tribes is Khash-len, or "Mohammedans," whence, probably, the term Khachi applied to the whole region. From the two principal groups of tribes settled in it, the country is also known by the name of Hor-Sok.

Fig. 5.—Lake Dangra-yum and Taroot Mountains.

Scale 1 : 2,000,000.

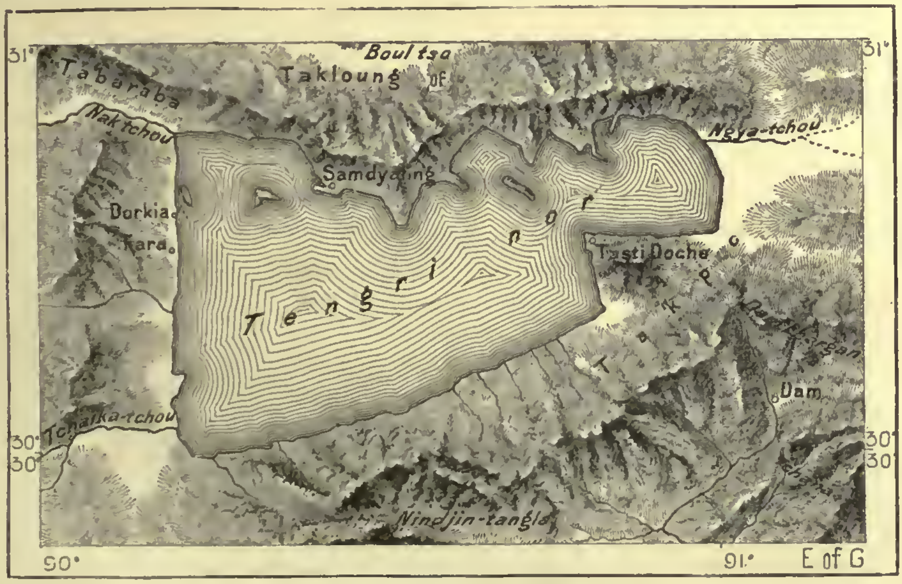
30 Miles.

Of the numerous lakes scattered over the Khachi plateau, those of Namûr, Ike Namûr, and Bakha Namûr are the largest traced on the Chinese maps. The waters or partly flooded tracts in this vast lacustrine basin would seem to stretch south-west and north-east for over 120 miles, and we now know that the plateau is largely occupied by a chain of lacustrine basins running north-west and south-east, parallel with the depression watered by the Tsangbo. In 1874 the pundit Nain Singh visited many of these lakes, several of which are merely the remains of formerly far more extensive basins. Some have even been reduced to muddy meres, covered with a crystalline incrustation, which is broken up by the salt

traders. Some of the lakes are saline, others brackish, while most of those with free outlets are perfectly fresh. This lacustrine region has a mean elevation of from 15,000 to 16,000 feet, with almost everywhere extremely gentle slopes, over which carriage and even military roads might easily be constructed.

One of the largest lakes is the Dangra-yum, or "Mother Dangra," which is contracted towards the centre, thus forming nearly two separate basins. Although no less than 180 miles in circumference, the devout Buddhists of the district, and even of Lassa, often undertake to walk in procession round this lake, taking from eight to twelve days to perform the task, according to the season. A large mountain rising south of the lake has received the name of Targot-yap, or "Father Targot," and the natives regard this mountain and Mother Dangra as the first parents of

Fig. 6.—Tengri-nor.
Scale 1 : 11,001,000.



18 Miles.

mankind. The groups of hills dotted round about are their daughters. The *kora*, or complete pilgrimage round the mountain and lake, takes about one month, and is a most meritorious act, effacing all ordinary sins. Two koras satisfy for one murder, and the parricide himself is pardoned if he performs the act three times.

East of the Dangra-yum the lakes become more numerous than elsewhere on the plateau, and most of them drain northwards, where occurs the Chargut-tso, said to be the largest basin in the south of the tableland, and discharging its waters to one of the great affluents of the Indian Ocean. The Tengri-nor, which is smaller than the Chargut-tso, and situated in the south-east angle of the Khachi country, lies already within the limits of modern exploration. It is about 60 miles from Lassa, and runs 48 miles south-east and north-west, with a breadth of from

15 to 24 miles. The pundit who visited it in 1872 took fourteen days to traverse its northern shore. It is of unknown depth, and an almost perennially cloudless sky is mirrored in its clear waters, whence its Tatar name, Tengri-nor, and Tibetan Nam-tso, both meaning the "Heavenly Lake." Thousands of pilgrims yearly face the difficulties of the route and the marauders of the district in order to visit the convent of Dorkia, and the other monasteries on the headlands commanding extensive vistas of its blue waters, and of the snowy peaks in the south and south-east. In this "holy land" everything partakes of the marvellous. Here a rocky gorge has been the work of a god; elsewhere an earthen mound raised by the hand of man has been suddenly rent asunder to afford an exit heavenwards to a lama who died in a state of ecstasy. The very fossils of the rocks are sacred objects, and are carried away as relics of one of the "three hundred and sixty mountains," or divinities in the suite of the principal deity, the snow-clad Ninjin-tang-la.

It was till recently supposed that the evaporation of the Tengri-nor about balanced the amount discharged through its influents. But this is a mistake. The traveller who explored it in 1872 did not perceive its outlet, which, like the lake itself, was at the time covered with ice. This outlet escapes from the north-west corner, and flows to the river which drains the Chargut-tso. In its neighbourhood are some hot springs, and farther north the Bul-tso, or "Borax Lake," covers a space of some 24 square miles. The pilgrims, who here combine trade with devotion, carry away loads of borax, which they sell in Lower Tibet, or forward over the Himalayas. From the Bul-tso formerly came the borax known as Venetian, because refined in that city.

The Eastern Highlands and Rivers.

These chemical efflorescences bear witness to the slight snow and rain fall on the Khachi plateau. Yet immediately east of it begins that remarkable region where the brooks and rivulets are collected from all quarters into mighty rivers. This contrast is caused by the mountains skirting the plateau, which receive moisture only on their slopes facing the south and south-east sea breezes. These highlands are evidently divided into several groups, for the Chinese maps show various streams flowing to the tributaries of the Indian Ocean, and to the Yang-tze-kiang, and rising on the Khachi plateau. The highlands are divided by erosive action into several distinct chains; but the tableland itself is nearly everywhere sufficiently elevated to cause a great difference of climate between the two slopes. But we do not yet know whether the highlands belong to a single border chain, separated at intervals by the upland river valleys, or form part of distinct ranges at the eastern extremity of the plateau. Richthofen accepts the first hypothesis, according to which a transverse orographic system connects the mountains of South Tibet with the Kuen-lun. To this assumed chain he even gives the name of Tang-la,* from a group of peaks rising south of the Tengri-nor. Yet from what is known of the upper river courses, the intermediate chains would

* The term *la* usually means "mountain pass," but in East Tibet it is frequently applied to mountains, and even to whole ranges.

all seem to form parallel crests running south-west and north-east, with broad and deep intervening depressions. These crests are successively crossed by the caravans proceeding from Tibet to Mongolia.

Of these parallel chains the southernmost is the Tant-la, whose western extremity abuts upon Richthofen's Tang-la. The two words seem to be merely dialectic varieties of the same name. Huc speaks of the Tant-la as perhaps "the highest point on the globe," but during his third expedition Prjevalsky scaled these formidable heights and fixed their elevation at 16,600 feet, or about 3,000 feet lower than some other frequented passes. At their southern base are numerous thermal springs, which unite in a considerable rivulet flowing over a bed of yellow or gold-coloured pebbles. Dense vapours rise continually above the springs, and are condensed in fleecy clouds, while in some reservoirs the pent-up vapour is ejected, forcing upwards a vast column of water like the geysers of Iceland or the Yellow Stone National Park in the United States.

South Tibet—The Trans-Himalayan Ranges.

South Tibet, comprising that portion of the plateau where towns have been built, and where the nation has been gradually constituted and its culture developed, consists of the relatively sheltered depression stretching south of the Khachi tableland. In ordinary language the term Tibet is applied to this section alone of the Trans-Himalayan uplands. Although draining in opposite directions to the Arabian Sea and Bay of Bengal, it is nevertheless a longitudinal valley, at once the largest, and, thanks to the surrounding highlands, the grandest on the surface of the globe. But this long depression, forming a semicircle parallel with the Himalayas, is not a regular plain or a mere trough limiting the Khachi plateau on the south and south-west. It is a highland region whose ranges run mostly in the same direction as the Himalayas.

The chain skirting the north side of the Tibetan depression properly so called, and at the same time forming the southern escarpment of the Khachi plateau, may be regarded as a continuation of the Karakorum. East of Kashmîr and of Ladak this range trends southwards parallel with the Himalayas, and projects to the left several ridges which gradually merge with the plateau; while the main chain, cut into ravines and even intersected by tributaries of the Tsangbo, by some closed basins, and eastwards by the affluents of the great eastern rivers, unites with the Tang-la south of the Tengri-nor. Back of this chain rise several lofty groups, including the Targot-leh, which overlooks the Dangra-yum, and which Nain Singh regards as the highest in the whole region of plateaux north of the Himalayas. Farther east the Gyakharma rises above the great lake Nyaring-tso, and is separated from the southern border chain by the valley of the Dumphu, an affluent of the Nyaring. Peaks from 23,000 to 24,000 feet high have been sighted on the range skirting the course of the Tsangbo, and which have not yet been definitely named. For this Tibetan chain the Schlagintweits have retained the Tatar term Karakorum, which belongs, strictly speaking, to the crest separating Kashmîr from

the Upper Yarkand valley. But Hodgson would prefer to call it Ninjin-tang-la (Nyenshhen-lang-la), after the magnificent peak of the Tengri-nor—a suggestion which would introduce needless confusion into the nomenclature of this region. For the same reason we should perhaps reject the Tibetan term Gangri, or "Snowy Mountain," already applied to several summits in West Tibet. Klaproth has proposed Gang-dis-ri, adopted by Markham, while Petermann and others call the chains and groups south of the plateau simply the "Tsang Mountains," after the Tibetan province of that name, which they shelter from the northern blasts.

Another line of crests and summits, which might be called the Trans-Himalayas, stretches between the Tsang or Gang-dis-ri highlands and the glittering peaks of the Himalayas, and sends down glaciers on either side. The South Tibetan depression is thus divided east and west into two secondary and parallel depressions. The middle chain, forming a continuation of one of the Ladak ranges, lifts its snowy peaks above the southern edge of the Satlaj valley, and farther on above that of the Tsangbo. Although less elevated than the Himalayas, it forms a more important water-parting, and is pierced by fewer river beds. For about 480 miles the Trans-Himalayas completely enclose the Tsangbo basin, while the deeper gorges of the Himalayas allow several streams to escape towards the plains of the Ganges. But not all the running waters of these upland regions find their way to the ocean, and some vast cavities in the intervening plateaux are filled with lakes without any outflow, such as the Chomto-dong and Palgu-tso. The water of the Chomto-dong is perfectly sweet and limpid, which would seem to imply that an outlet existed till comparatively recent times. All these highlands are crossed by passes exceeding Mont Blanc by 1,500 and even 3,000 feet in altitude.*

Mount Kaïlas: Source of the Four Sacred Rivers—The Upper Satlaj and Indus.

The Tibetan region, where rise the Satlaj and the Tsangbo, is a holy land both for Brahmins and Buddhists—a fact undoubtedly due to its geographical importance. The transverse ridge connecting the Himalayas with the Gang-dis-ri, and through it with the whole Tibetan plateau, not only forms the necessary route between the two great valleys which stretch far into regions of different aspect, but

* Chief altitudes of the Lacustrine Basin, the Gang-dis-ri, and the Trans-Himalayas:—

	Feet.		Feet.
Lacustrine Basin.		Ninjin-tang-la	24,000
Thok-jalung, highest inhabited place on the globe	16,000	Pass west of this mountain	18,600
Targot-yap, highest peak of the Targot-leh	24,000	Baknak Pass, north of Lassa	17,600
Lake Dangra-yum	14,900	*Trans-Himalayas.*	
Gyakharma Peak	20,800	Snowy Peak (langûr), south-west of Janglacheh	23,960
Lake Tengri-nor	15,200	Tunglung-la	19,200
Gang-dis-ri Range.		Lagulung-la	15,900
Mariam-la	14,500	Khamba-la, south-west of Lassa	17,000
Khomorang-la	18,500	Lake Palti	13,400
Kaïlas, or Tise	21,700	Khoro-la, west of Lake Palti	16,500

is also the connecting link between the Tibetan plateau and the Himalayas. North-west of it rises the Tise of the Tibetans, the Kaïlas of the Hindus, whose pyramidal mass is isolated from the other mountains in the Gang-dis-ri chain. When the Hindus perceive in the distance its lofty crest presenting the form of a ruined pagoda, they fall prostrate seven times, and seven times raise their hands towards the heavens. In their eyes it is the abode of Mahadeo, or the Great God, the first and grandest of all those Olympuses on whose summits the peoples at each successive stage of their westward migrations have seen in fancy the dazzling light of their deities. It is the Mount Meru of the ancient Hindus—the pistil of the symbolic lotus flower which represents the world. Nor do the Tibetan lamas yield to the Hindu yoghis in their veneration for the sacred mountain. The most daring amongst them undertake a pilgrimage of several days round the Kaïlas across the snows and rugged ground. In the second century of the Christian era the first

Fig. 7.—Mount Kaïlas and the Four Sacred Rivers.
Scale 1 : 3,000,000.

Buddhist monastery on the plateau was built at the foot of this mountain, with its four faces, "one of gold, the second of silver, the third of rubies, the last of lapis-lazuli." The Hindu legends also here seek the mysterious grottoes whence emerge the four divine animals—the elephant, lion, cow, and horse—symbols of the four great rivers—the Satlaj, Indus, Ganges, and Tsangbo. These mighty streams, which flow in four different directions, rise on the flanks of the same mountain within a space of not more than 60 miles in extent. The Alaknanda, Karnali, and other head-streams of the Ganges rise on the Indian side of the Himalayas, and the Indus receives its first waters from the northern snows of the Gang-dis-ri. But between these two extreme points occurs that deep depression where rise the Satlaj and Tsangbo.

At a former geological epoch the crescent-shaped depression skirting the northern slope of the Himalayas was probably flooded by a vast alpine lake, of

which the present lakes scattered over the basin are the remains. By a remarkable parallelism this long lacustrine valley runs in the same direction as the chain of lakes in the southern plateau of Khachi, from the Dangra-yum to the Tengri-nor. In this depression two rivers also take their rise, and, like the Satlaj and Tsangbo,

Fig. 8.—The Mansaraûr Basin.
Scale 1 : 720,000.

flow in opposite directions—the Indus on the one hand, and on the other the mysterious stream which probably forms the upper course of the Salwen.

The least-inclined section of the South Tibetan depression is that which is traversed by the Satlaj. Its first terrace is occupied by Lake Kong-kio, which has no outlet, and which, like nearly all closed basins, has become salt. Round about are scattered some other saline tarns; but the Mansaraûr and Rakus-tal, the two great basins of the valley, are fresh-water lakes connected together by a permanent

rivulet carrying to the Satlaj a sacred stream, for the Mansaraûr—the Manasa Sarovara of Hindu legend—is the "lake formed by the breath of Brahma."* Its blue waters are frequented by thousands of swans, venerated as blissful beings. The surrounding bluffs are dotted with the little houses of pilgrims, many of whom do not fear to reside for months in these frightful solitudes. Those who die on the way know that their ashes will be cast into this water, "the most hallowed in the world," and this is in their eyes a supreme reward. The Ganges was formerly said to rise in Lake Mansaraûr, but Moorcroft has shown that its source is on the southern slope of the Himalayas. Even at these elevations battles have been fought, and in December, 1841, the Chinese here defeated the Dogras of Kashmîr, pursuing them as far as Leh in Little Tibet.

On emerging from Lake Rakus-tal, the Lanagu-lanka of the Tibetans, the Satlaj (Satradu, or Satadru) occasionally runs dry towards the end of summer; but lower down it is a permanent stream in the valley, 14,600 feet above the sea, which is noted for its thermal waters. Here sulphurous vapours are emitted from the ground; and the same phenomenon is observed in many other parts of Tibet, although there is nowhere any trace of volcanic rocks.

The general incline of the Upper Satlaj valley is scarcely perceptible within Tibetan territory. Near the spot where the river is about to escape through the Himalayan gorges towards the plains of India, the terraces on either bank maintain an elevation of 14,600 feet above the sea, as at Lake Mansaraûr, 180 miles farther up. These terraces, which are of lacustrine origin, have been furrowed by the stream to a depth of 1,300 and even 1,600 feet, without, however, reaching the live rock forming the old bed of the lake. All the tributary torrents have, like the Satlaj, to force a passage through the rocks and clays; and the whole district has thus been cut up into vast gorges. In these gorges the few inhabitants of the country have formed their temporary or permanent abodes. Thus Daba, the chief "city" of the Satlaj valley in Tibet, occupies the sides of a ravine over 300 feet deep, which has been cut through the rock by an affluent of the main stream. A few two-storied stone houses, with their white façades, contrast here and there with the red escarpments; and towards the top of the town the quarter occupied by the lamas forms a sort of citadel, itself overlooked by inaccessible rocky heights. A solitary gate in the lower quarter gives ingress to the inhabitants. In winter Daba is completely abandoned; the gorge is filled with snow, which covers all the houses, and which in spring-time has to be cleared away, with the mud, rocks, and other remains of avalanches that have accumulated during the cold season. The débris which now fills up the old lake belongs to the tertiary and quaternary epochs, and contains many fossils as well as the bones of some large vertebrates. Thus a special fauna had time to be developed and disappear during the ages occupied by the detritus in filling up the inland sea, which has escaped through the gap in the Himalayas now affording an outlet to the Satlaj.

Several of the rivers rising north of the Gang-dis-ri were formerly said to be

* According to Moorcroft, Manasso Sarûar means simply the Sacred Lake. It is the Tso-Mapang of the Tibetans.

the main head-stream of the Sind or Indus, and to all of them was applied the mythical name of the Senge Khabad, or river "flowing from the lion's throat." But the Anglo-Indian explorations have established the fact that of these rivers the true Indus is that which rises farthest east, near the northern slope of the Mariam-la. This is the longest and most copious of all the streams uniting in the common bed of the Indus above its entry into Kashmîr. Within Tibetan

Fig. 9.—Lake Pang-kong: Encampment of the English Expedition of 1871.

territory the Indus is also joined, and nearly doubled in volume, by the Gartung, or river of Gartok.

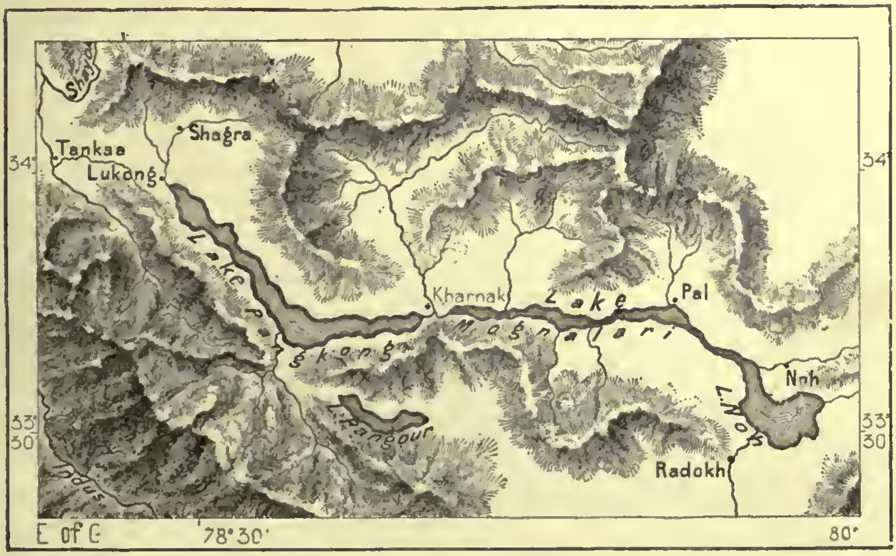
Lake Pang-kong.

The continuous diminution of moisture which has reduced so many Tibetan lakes to mere salt marshes has also dried up many rivers, converting into closed basins numerous valleys which formerly drained to the Indus. A striking example occurs in the Radokh valley, north of this river. In this district, at a

mean elevation of 13,500 feet, a valley, running parallel with the Indus, follows the same general windings, turning first north-west, then heading westwards through a mountain gorge, beyond which it resumes its normal north-westerly course. A large portion of this valley is flooded, but the lake thus formed, which resembles many inland Scandinavian fiords, alternately broadens and contracts with the breadth of the bed and the projecting headlands. It has even been divided into three basins at different levels by the detritus, or perhaps by the alluvia washed down with the side streams. The upper lake takes the name of Noh, from a neighbouring caravan station; the central, 40 or 45 feet higher than the lower, is the Tso-Mognalari, or "Fresh-water highland lake;" and the same name is applied to the lower lake itself, although the lack of supplies has gradually

Fig. 10.—Lake Pang-kong.

Scale 1 : 1,600,000.



30 Miles.

changed it to a saline basin with 13 per 1,000 of salt, or about the same as in the Black Sea; but it also contains nearly as much sulphate of soda and magnesia as of sea salt, so that the absolute proportion differs. The Anglo-Indian explorers have called this lake the Pang-kong, from the Kashmîr province of that name into which its northern extremity penetrates. Water marks and banks of fresh-water shells show that it formerly rose 240 feet above its present mean level, which is 13,460 feet above the sea. Hence it was twice as deep as at present, its extreme depth being now 140 feet according to Trotter and Biddulph, or 165 feet according to H. Schlagintweit. The total area of both lakes, estimated at 216 square miles, was also more than double when the emissary descended to the Shayok through a valley some 8 miles long, and through the Tankseh River. While gradually falling

with the level of the lake, this outlet furrowed the rock to within 154 feet of its present level, after which the outflow ceased, and the lake gradually diminished by excess of evaporation over the inflow.

The Tsangbo, or Brahmaputra (?).

The pre-eminently Tibetan river—the river which traverses the two central provinces of Tsang and Wei—is the Tsangbo (Tsanpu, Tsambo, Zangbo, Sampo, or Sambo); that is, "the Holy Stream," whose upper course is often called the Yaru-Tsangbo, or "High Tsangbo." Like the Indus and Ganges, it has been compared to a mystic animal, several of its names meaning the "Peacock" or the "Horse" River, for according to one legend it flows from the mouth of a war-horse. It rises in the same low ridge as the Satlaj, and its chief head-streams are the glacial rivulets descending from the cirques of the Himalayas. It receives but slight contribution from the Karakorum, from which it is separated by the parallel Khomorang range. After assuming the proportions of a river, it flows through a gently inclined plain, in which its sluggish waters become navigable for barges near the convent of Tadum, where the pass over the Mariam-la descends to the valley. No other river in the world is navigated at this elevation of nearly 14,000 feet above the sea. Lower down it is also navigable at several points by means of rafts covered with leather, but elsewhere it is entirely obstructed by rapids and sand-banks. Its high terraces and projecting bluffs have offered facilities for the construction of suspension bridges, though these frail contrivances are little used by travellers, who prefer to cross the stream in boats.

Fig. 11.—Lake Palti.
Scale 1 : 765,000.

18 Miles.

During its course through Tibet the Tsangbo receives numerous tributaries on its right bank from the Himalayas and Trans-Himalayas, on its left from the Gang-dis-ri, and through some gaps in the border chain even from the upland regions beyond that range. The Namling, one of these torrents from the north, rising in the Khalamba-la near Lake Tengri-nor, traverses one of the most remarkable thermal districts in Tibet. Here are two geysers, which eject at intervals columns of sulphurous water to a height of 58 feet, and in winter the returning fluid forms

round their orifices crystal margins bristling with long stalagmites. Most of the lakes in this district have either been filled with alluvia or exhausted through their emissaries. Amongst the largest that still survive is the Yamdok, or Palti, which is figured on D'Anville's and subsequent maps as almost ring-shaped, or like a moat surrounding a citadel. The island, which is sometimes represented rather as a peninsula, rises 2,250 feet above the surface of the lake, which is itself 13,350 feet above sea-level. According to Manning it is slightly brackish, although the pundit who visited its northern shore found its water perfectly pure and sweet. It is said to be very deep, but it is uncertain whether it forms a completely closed basin or drains through a western outlet to the Tsangbo, from which it is separated on the north by the lofty Khamba-la group.

North-east of Lake Palti the Tsangbo is joined by the Kichu, another "holy stream" which waters the Lassa valley. Nain Singh, who visited the district in 1875, saw this valley stretching eastwards some 30 miles, and then disappearing towards the south-east between the hills. But in 1877 another Hindu explorer, instructed by Harman, was able to follow the course of the river for over 180 miles. This explorer first followed the Tsangbo to the extremity of the valley seen by Nain Singh from a distance, but was afterwards obliged to make a great détour in order to avoid a deep gorge into which the river plunged. Nevertheless he came upon it again some 20 miles from the point where he had left it, and then ascertained that it made a bend northwards before resuming its normal course towards the east and south-east. At the farthest point reached by him he saw a fissure opening in the mountains in the same south-easterly direction, and was told by the natives that the Tsangbo escaped through this fissure to traverse a tract inhabited by wild tribes and a country beyond it belonging to the British Government.

At Chetang the Tsangbo valley is about 11,250 feet above sea-level. Yet at this elevation the river, which already drains an area of 80,000 square miles, has a volume equal to that of the Rhine or Rhone. When seen by Nain Singh its waters were comparatively low, yet the breadth of from 1,000 to 1,500 feet assigned to it by him, combined with its great depth and velocity, implies a volume at that season of rather more than 28,000 cubic feet per second. But during the floods of June and July the stream overflows its banks for several miles, and the discharge cannot then be less, perhaps, than 700,000 cubic feet, assuming the rise to be no more than 16 feet, as the natives assert. Below Chetang, in East Tibet, the Tsangbo still receives a large number of copious streams, and flows through one of the wettest regions on the globe, so that it must carry an enormous quantity of water to the Indian Ocean. Yet, to judge from the maps, it seems to lose itself, for its lower course remains still uncertain, oscillating between the Brahmaputra and Irawady. Francis Garnier even suggested that limestone rocks full of caverns, like those seen by him in many parts of China and Further India, occupy the south-east portion of Tibet, and that the Tsangbo here flows partly underground and ramifies into several basins. But what little is known of the geology of East Tibet seems opposed to this theory. Limestones occur only on the Yunnan frontier, the rest of the country being composed of crystalline rocks covered with glacial clays.

But however this be, no explorer having yet followed the lower course of the Tsangbo beyond the point reached by Harman's emissary, this important question remains still undetermined. What becomes of the river after escaping from its Tibetan valley? In 1721 the missionary Regis, who drew up a chart of the country by order of the Emperor Kang-hi, stated that "nothing is known for certain as to the place where the river discharges." He had merely learnt that it flows into the Bay of Bengal "towards Aracan, or the mouth of the Ganges in Mogul." D'Anville, availing himself of the lamas' map and the documents furnished

Fig. 12.—Course of the Tsangbo.
According to the Chinese Documents.

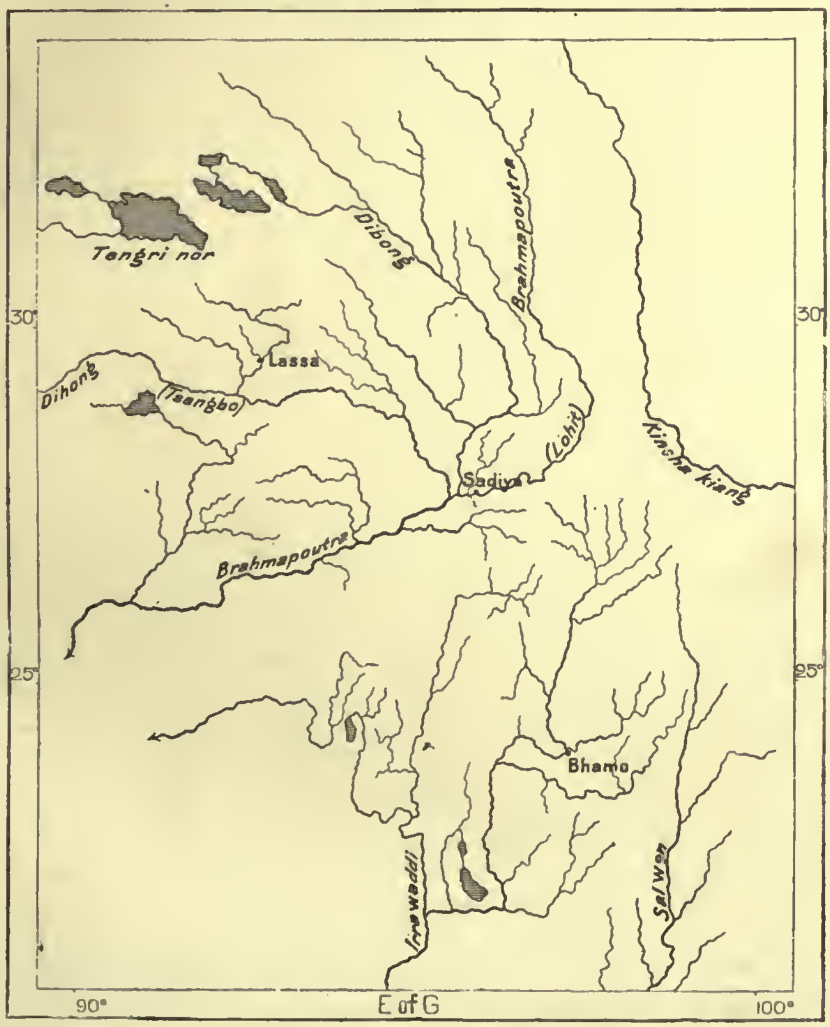
According to D'Anville

Leagues of 20 to the Degree.

by missionaries, traces the course of the Tsangbo as if it were continued in the kingdom of Ava by the river Irawady. Rennell, on the contrary, identifies it with the Brahmaputra, and his view is now most commonly accepted. Yule even asks whether the question may not be regarded as already settled, and advances an argument which he thinks conclusive. In 1854 two Roman Catholic missionaries, while attempting to reach Tibet from Upper Assam, were killed by one of the Mishmi tribes. A bishop at that time residing in a Tibetan province annexed to China writes that some Tibetans spoke to him of this tragedy as having taken

place on the banks of the Gakpo, or Kanpu, "a tributary of the Irawady," which flows to the north of the Tsangbo. Now it is certain that the murder occurred on the Lohit, or East Brahmaputra; for a detachment of British troops went thither to avenge their death. Yule argues from this that the Lohit is certainly the continuation of the Gakpo, and that this river, describing a great bend east of the

Fig. 13.—Course of the Tsangbo.
According to H. Schlagintweit. Scale 1 : 12,000,000.



300 Miles.

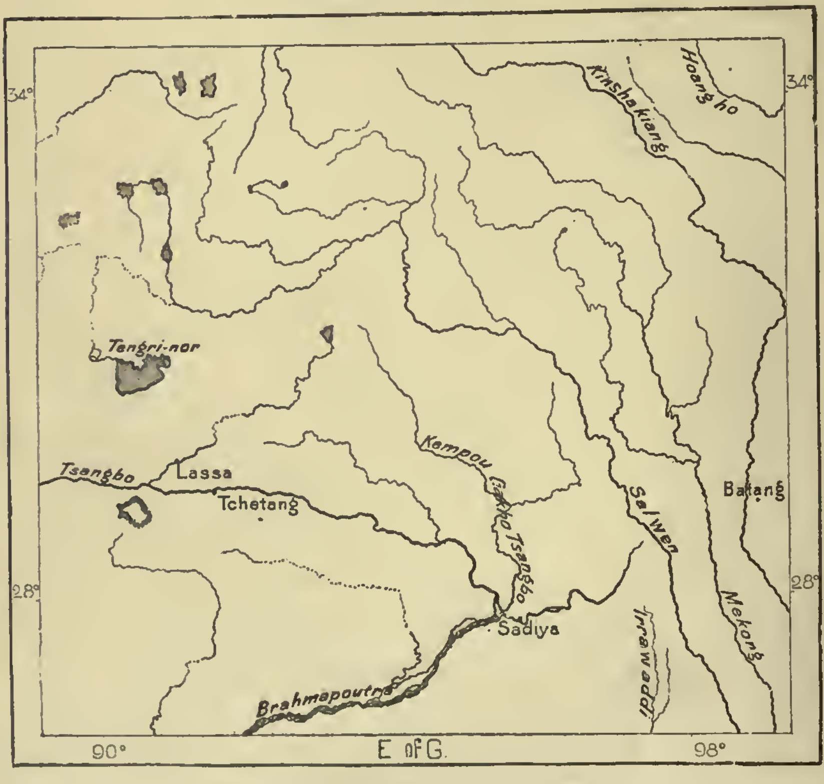
Tsangbo, prevents it from reaching the Irawady. But it may be asked whether a vague report, turning on the doubtful name of a river, is sufficient to dispose of such a geographical question.

The partisans of Rennell's view have long discussed the rival claims of the Dihong, Dibong, Subansiri, and other streams in Assam, to be regarded as the upper course of the Brahmaputra. Most English geographers have pronounced in

favour of the Dihong, since Wilcox and Burlton ascertained in 1825-6 that it is evidently the main branch of the Brahmaputra. But when they went on to assert that the Brahmaputra itself is the lower course of the Tsangbo, the still unexplored gap between the two rivers was no less than 300 miles long as the bird flies, and the intervening highlands were entirely unknown. The information brought back by Wilcox regarding the river ascended by him was also far from sufficient to justify his opinion on the identity of the two streams. He should have first of all proved that the Dihong has a larger volume than the Tsangbo.

Fig. 14.—Course of the Tsangbo.

According to Markham. Scale 1 : 10,000,000.



300 Miles.

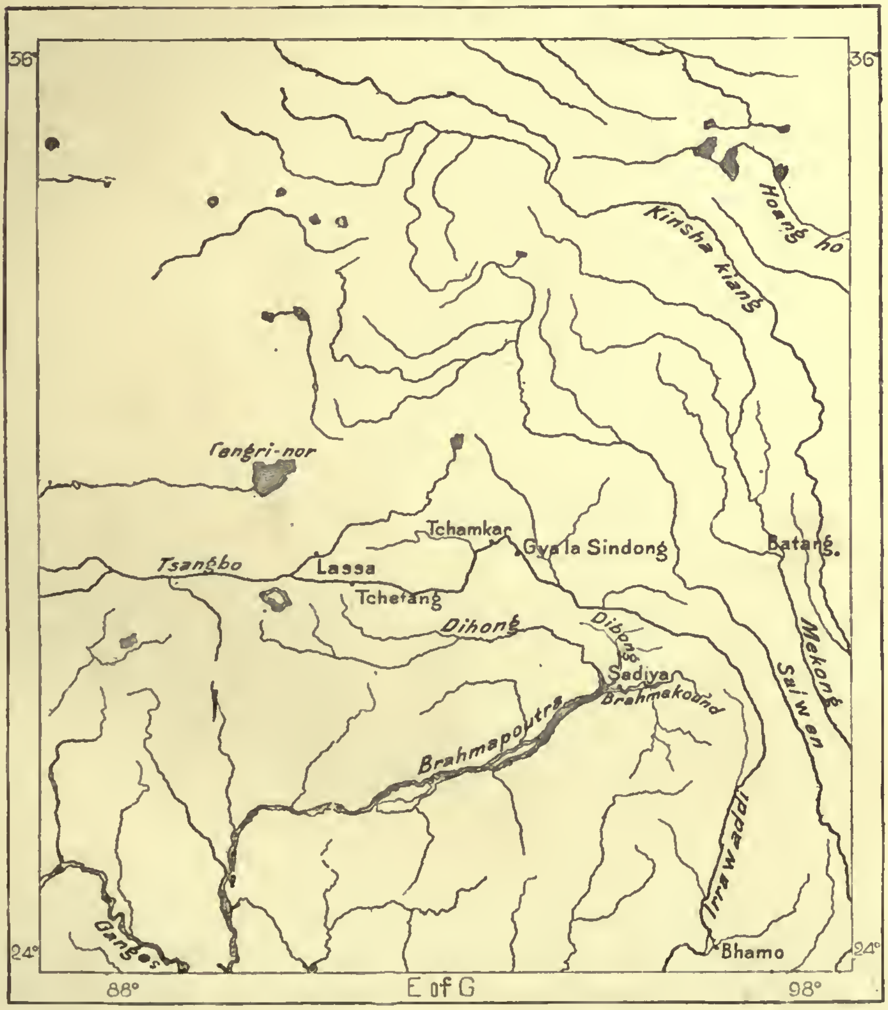
But he merely observed that at the point reached by him the Dihong was 100 yards broad, with a slow current, and, *as he supposed*, an immense depth.

The problem is now confined to the narrowest limits. According to Walker's explorations, the entirely unexplored space separating the extreme point reached by the already mentioned Hindu pundit on the Tsangbo, and the farthest point to which the Dihong has been ascended, is exactly 93 miles, and the difference of level would appear to be about 7,500 feet. Were the two streams connected, the total fall in an approximate course of 180 miles would consequently be rather over 1 in 100 yards—a fall unapproached by any other river in its middle course, and equalled only by the valleys of torrents in the heart of the mountains. Vague

reports, no doubt, speak of rapids and cataracts through which the Tibetan waters reach the lowlands; but it is uncertain what streams these reports refer to. Besides, the exact measurements recently taken of the discharge of the Brahmaputra and its affluents do not seem favourable to Rennell's hypothesis. The flow of the Subansiri, Dibong, and Upper Brahmaputra shows that these rivers are all far

Fig. 15.—Course of the Tsangbo.

According to Gordon. Scale 1 : 11,000,000.



300 Miles.

inferior in volume to the Tsangbo at Chetang, and consequently still smaller than the same stream 180 miles lower down. The volume of the Dihong, as measured by Woodthorpe, is 54,000 cubic feet per second in the snowy season, when the water begins to rise; and judging from the extent of land covered during the floods, the discharge would then seem to vary from 350,000 to 420,000 cubic feet. But this is precisely the amount we might expect to be sent down by the river

basin limited by the Trans-Himalayan range; for here the average rainfall is at least 13 feet, and the natural discharge may be taken at from 400 to 500 gallons per square mile. A basin from 8,000 to 12,000 square miles in extent would suffice to supply such a quantity, and the unexplored tract separating the Tsangbo and Lower Dihong valleys is large enough to contain a basin of this size by including in it that of the Lopra-ko-chu, which flows to the west between the Himalaya and Trans-Himalaya, and whose lower course is still unexplored.

On the other hand, the comparative fluvial discharge, as approximately indicated for the Tsangbo and accurately for the Irawady, would seem to justify the Chinese map reproduced by D'Anville, which represents the Burman river as the continuation of the Tsangbo. At Bhamo the Irawady discharges during the floods over 1,000,000 cubic feet, and its average volume at this place is about two-thirds of the river in the delta; that is, scarcely less than 315,000 square feet. No doubt, during the dry season from November to June, the discharge of the Lower Irawady may fall to 70,000 and even 47,000 cubic feet per second; but during that period the river receives no rain-water, and diminishes by evaporation as it approaches the sea. The excessive discharge at Bhamo, where the annual rainfall is far less than in the Brahmaputra basin, can be explained only by assuming a large area of drainage. Yet on most maps the Irawady basin is strictly limited by an amphitheatre of hills on the northern frontier of Burmah. Wilcox and Burlton may doubtless have seen a torrent near its source in Burmese territory; but it does not follow that this was the true Irawady, although so named by them. These explorers themselves heard reports of a great eastern stream belonging to the same basin, but they made no attempt to reach it.

In any case, before coming to a definite conclusion, it will be wise at least first to see whether the blocks of wood or stems of trees numbered by order of the Indian Topographic Department and thrown into the Tsangbo in Tibet will reach the plains of Bengal or of Burmah. Meanwhile it is to be hoped that the route from Assam to Tibet may soon be reopened, and that explorers may have free access from the plains to the uplands through the intervening forests, swamps, and hills.

Head-waters of the Great Indo-Chinese Rivers.

North of the Tsangbo depression the Tibetan tableland has been cut into innumerable side valleys by the running waters. The southern trade winds from the Bay of Bengal easily reach the Khachi plateaux through wide openings in the Himalayas. Hence the eastern slopes of these uplands receive a copious rainfall from the Indian Ocean. Whilst the arid soil, the rarefied atmosphere, sultry heats in summer, and intense winter cold render the plateaux almost inaccessible, the ravine lands are equally difficult to traverse, owing to their rugged character, their steep escarpments, fierce torrents, dense forests, and the wild tribes inhabiting the clearings. Most of this region depends officially on Tibet, and administrative centres are here established as in the other provinces. Nevertheless several groups of tribes are practically independent. No organized army has hitherto been able

THE LANTZAN-KIANG—HOGG'S GORGE.

to occupy the country, and its savage or half-civilised inhabitants have occasionally recognised the supremacy of Tibet or China only for the purpose of finding a ready market for their produce.

Their lands have been traversed by travellers, and especially by missionaries, but few of them have been able to trace a continuous itinerary of their routes, so that these highland regions, fifteen times more extensive than the Alps, must long remain unknown. Hitherto little has been done beyond determining the general run of the main ranges. Parallel with the Tant-la other ridges stretch to the Kuku-nor, and all of them run mainly north and south far into the Trans-Gangetic peninsula. These highlands form the Indo-Chinese system spoken of by Richthofen. The two systems intersect each other, leaving several breaks in the converging lines, through which the rivers escape from their upper basins. As far as can be judged from the roughly sketched charts of explorers, supplemented by the Chinese documents, the streams of the province of Kham indicate by the direction of their valleys the general run of the mountain ranges. All these streams flow first north-east parallel with the Tant-la, then finding an issue westwards, they gradually trend towards the south through the narrow and deep valleys of the Indo-Chinese system. Thus the Tsangbo itself is deflected to the north-east before bending round to the southern plains either through the Dihong or the Irawady. Similar curves, but on a much larger scale, are described by the Mekhong and Salwen, and the Yang-tze-kiang itself runs parallel with the Mekhong several hundred miles southwards to an opening in the hills, through which it passes suddenly eastwards into China proper. Nowhere else do we meet with so many independent streams flowing so near each other in parallel valleys, yet ultimately discharging into different seas.

The emissary which escapes from Lake Chargut, and which also drains the Tengri-nor as well as most of the lacustrine district in the south-east corner of the Khachi plateau, is a considerable stream named the Nap-chu, or Nak-chu, by Huc and Nain Singh. But after leaving the plateau it frequently changes its name according to the districts and languages of the populations through which it passes. As remarked by Francis Garnier, the river nomenclature is purely local throughout China, and especially in this part of Tibet, the same name for the same stream being nowhere current for more than 60 miles of its course. Thus the Nap-chu becomes successively the Khara-ussu, Om-chu, Ngen-kio, Nu-kiang, Lu-kiang, and Lutze-kiang. This diversity of names, combined with the difficulties of exploration, has enabled geographers to send this river somewhat wildly up and down the country. While Petermann with the Schlagintweits has identified it with the Dibong, which joins the Dihong a little above the Bruhmaputra junction, Desgodins, who has followed the middle course of the "river of the Lutze people" for about 240 miles, has ascertained that it flows far to the east of the Brahmaputra, and accordingly identifies it with the Salwen. He also feels confident that the Lantzan-kiang, or Kinlong-kiang—that is, the "Great Dragon River"—is the Mekhong of Camboja, and this opinion has been confirmed by the French expedition up the Mekhong. Yet Schlagintweit, Kiepert, and Petermann make the Lantzan also a

tributary of the Brahmaputra, recognising in it the Lohit, or Red Brahmaputra, whose now explored basin lies almost entirely on the south side of the eastern continuation of the Himalayas. Yule again regards it as identical with the Gakpo, the small Tibetan river flowing north of, and parallel with, the Tsangbo.

Of all these rivers flowing from the Tibetan plateaux through profound fissures to the plains, the Lantzan probably passes through the most savage gorges. At Yerkalo, where it is still 7,500 feet above the sea, its rocky banks rise several hundred yards, in many places almost perpendicularly, above the river bed. South of Aten-tze it is not always possible to follow its course, and the traveller is here and there obliged to mount 1,500 and even 2,000 feet above the stream, which from these elevations seems like a mere rivulet. The gorge which Cooper has named Hogg's Defile, from one of his friends, is a fissure scarcely more than 60 feet wide, which seems completely shut in wherever the view is interrupted by overhanging rocks. At its narrowest point a sort of platform supported by props springing obliquely from the rock has had to be constructed in its vertical side. Being kept in a bad state of repair, this worm-eaten stage affords vistas through the planks of the seething waters below. In several other places the bluffs have afforded facilities for the construction of rope bridges resembling the *tarabitas* of Columbia and the Duero. A simple bamboo rope is stretched from side to side with a slope sufficient to allow an object attached by a movable ring to be carried across by its own gravity. Solid copper frames receive travellers and animals, who are shot over the yawning abyss in a flash. The return journey is made at some point where the rope is inclined in the opposite direction. But the system varies considerably in different places.

Whatever be the origin of these deep fissures, there are several indications of great changes in the climate of this region. Beds of reddish clay, like the glacial marls of Europe, huge boulders strewn over the valleys, and similar appearances seem to show that the glaciers formerly descended much farther than at present down the watercourses of East Tibet.

Climate.

But although the glaciers have retreated from the lower valleys, the present climate of the country is sufficiently indicated by the title of "Snowy Kingdom," commonly given to it by all its neighbours. According to Turner the people of Bhutan simply call it the "North Snow," while the people of the plains, continually contemplating the snowy crests of the Himalayas, naturally suppose that the land beyond them is covered by perennial snow-fields. But the effects of altitude are largely balanced by the extreme dryness of the air on the plateaux, where at times not a single flake will fall for months together. The little that does fall is also soon swept by the winds into the ravines, or in summer rapidly melted by the sun. In the south-east corner of Tibet the zone of perpetual snow begins at about 18,500 feet—that is to say, some 3,000 feet above the summit of Mont Blanc; and even on the Cayley Pass, 19,900 feet high, Forsyth found the ground free of

snow. On the southern slopes of the Himalayas the snows drifting before the winds descend much lower than on the Tibetan side, and the passes over these mountains are closed earlier in the season than the more elevated routes across the various plateau ranges farther north. Even in the depth of winter the road is practicable between Kashmîr and Yarkand, thanks to the slight snowfall. So great is the dryness of the air in some parts of Tibet that the doors and wooden pillars of the houses have to be wrapped in cloths to prevent them from warping, and to keep the skin from chapping many travellers are accustomed to smear their faces with a black grease. The animals dying on the routes across the plateaux soon shrivel up, and some of the more difficult roads are lined with the mummified yaks, horses, and sheep. When a beast of burden falls the caravan people generally cut away the choice parts, and spit them on the thorny scrub for the benefit of passing wayfarers.

But if the snow is relatively slight, the climate of Tibet is none the less severe. Here Prjevalsky, Drew, and others speak of the terrible cold, combined with a deficiency of oxygen, which they had to endure. On the higher passes and crests the rarefaction of the air renders all exertion very distressing, and men and animals alike suffer from the so-called "mountain sickness," often causing the camels to fall as if struck with lightning, or, as the Chinese writers say, "poisoned by the deadly exhalations from the ground." In 1870 a caravan of three hundred human beings, which left Lassa in February, lost all its thousand camels and fifty men before reaching the end of its journey. In winter all the streams and lakes are everywhere frozen down to within 8,000 or even 7,000 feet of sea-level. Even in July and August the caravans often find the water ice-bound on the passes. The long-haired yaks are at times burdened with a heavy coating of icicles, and Huc tells us that when crossing the frozen surface of the Lower Muru-ussu he perceived some fifty dark and shapeless objects, which, on a nearer view, proved to be a long line of these animals suddenly frozen to death while attempting to cross the stream. The attitude of the bodies in the act of swimming was perfectly visible through the clear ice, above which protruded their fine horned heads, from which the eagles and ravens had plucked the eyes.

The radiation of heat into the clear, cloudless upper regions contributes greatly to reduce the temperature of the plateaux, and here travellers suffer all the more that there is almost a complete dearth of fuel. Little can be found beyond some scanty brushwood, except on the more favoured camping grounds. Fortunately the nights are nearly always calm; but during the day, when the tablelands are exposed to the solar rays, while the depressions remain buried in a chilly gloom, the surface is swept by fierce sand-storms, the terror of all travellers. In some of the low-lying tracts the tillers of the land usually flood their fields at the beginning of winter in order to protect the vegetable soil from the erosive action of the winds, and this method appears also to increase its fertility.

Altogether the Tibetan plateau, enclosed as it is by lofty border ranges, is characterized by great dryness and the extremes of heat and cold. But little moisture reaches it from the Indian Ocean; the force of the southern monsoons is

spent in the Himalayan valleys, and the upper counter-currents alone are revealed in the avalanches of snow that are precipitated from the Kinchinjinga and other giants of the great range. Nevertheless, the eastern region of Tibet, towards which the Bay of Bengal projects inland, already partakes of the Indian climate. The marine winds penetrate into these lands through the breaks in the mountains, here much lower than in the west, and discharge abundant rains, especially during the *yirrh*, or rainy season, from August to October inclusive. All the rivers rising in this part of Tibet are fed far more by these rains than by the melting snows.

Fauna and Flora.

The elevation of the tablelands west of the province of Kham is too great for the development of arborescent vegetation, except in the sheltered depressions, and even here nothing is met beyond the willow, poplar, and some fruit trees. Elsewhere little is seen except stunted or rampant shrubs scarcely exceeding 6 feet in height. Yet the lamas have succeeded in growing some fine poplars about the monastery of Mangnang, in the province of Nari, 13,970 feet above the sea. On most of the exposed plateaux over 13,000 feet the vegetation is limited to thin and hard grasses sharp as needles, which pierce the camel's hoof and cover its feet with blood. Nevertheless, the *yabagere*, a hardy and woody plant, creeps up to an altitude of 15,000 feet, and in some places is met even where the dry atmosphere and saline properties of the soil are fatal to the grasses. Godwin Austen found it growing abundantly on the Chang-chegmu plateau, 18,300 feet above sea-level. Nain Singh met with fields of barley at an elevation of over 15,450 feet, or about the altitude of Monte Rosa. All the Ombo basin, watered by Lake Dangra-yum, is like a green sward; but in the colder uplands still inhabited by the Tibetans cereals seldom ripen, and the people here live entirely on the milk and flesh of their herds. On the other hand, the less elevated and well-watered south-eastern valleys are covered with vast forests. Amongst the larger trees is the prickly holm, which, though not so high, is comparable in the size of its stem to the pine, while far exceeding it in its rich and abundant foliage.

Although poor in vegetation, the Tibetan uplands have a much more varied fauna than the southern slopes of the Himalayas. Tibet, which is regarded by zoologists as a principal centre of evolution as regards animal life, possesses a special fauna, exceptionally rich in varieties of the ass, yak, sheep, antelope, gazelle, and wild goat. Nain Singh met with herds of as many as two thousand antelopes, which in the distance look like regiments of soldiers, with their sharp horns glittering like bayonets in the sun. The Schlagintweits found yaks at an elevation of 19,800 feet, and the tarbagan marmots (*Arctomys bobac*) are still found burrowing in the argillaceous soil up to 17,900 feet. The game is preyed on by foxes, jackals, wild dogs, and the woolly-haired white wolf; while in the neighbourhood of the Tengri-nor, white bears, resembling those of the polar regions, commit great ravages on the flocks. In East Tibet the fauna is still more varied, including the panther, buffalo, monkey, squirrel, bear, and a small species of wild boar. But

OVIS AMMON—IBEX SIBERICA—OVIS NAHURA—MARKHOV RAM.

birds are comparatively rare, though some of them rise to astonishing heights, one species of lark being met at 15,000, and others at over 18,000 feet. In Tibet proper no songsters are heard except birds of passage; but the eagle, vulture, and raven abound, while the pheasant frequents the woodlands. A few lizards and snakes reach an altitude of 15,400 feet, and some of the lakes on the plateau are stocked with fish. The extreme limit of fish in the Alps is 7,100 feet, whereas Schlagintweit met in Lake Mognalari (14,000 feet) varieties of salmon, which, like those of the sea, ascend every year to the higher fresh-water lake in the spawning season. In the basins that have become saline the species have adapted themselves to the altered conditions.

Several of the indigenous animals have been domesticated. The yak has been crossed with the Indian Zebu cow, the result being the dzo, whose varieties have hair of different colours, while the wild yak is always black. But in the fourth generation these animals revert to the primitive type. Although always somewhat obstinate, the yak is the most general beast of burden in Tibet; but sheep, being more hardy, are employed on the higher passes. Each sheep carries a load of from 20 to 30 lbs., and thrives on the scanty pasture along the route. The horses and mules make excellent mounts; but the most valuable domestic animal is the goat, whose *pashm*, or short, soft, downy hair under the outer coat, commands such high prices for the manufacture of the Cashmere shawls. The dogs, a powerful and formidable breed, are not employed in the chase, but only as house-dogs and collies. They degenerate in India, though some specimens have been perfectly acclimatized in England.

Inhabitants—The Tibetans.

The great bulk of the inhabitants, apart from the Mongolo-Tatar Horsoks of Khachi and the various independent tribes of the province of Kham, belong to a distinct branch of the Mongolian family. They are of low size, with broad shoulders and chests, and present a striking contrast to the Hindus in the size of their arms and calves, while resembling them in their small and delicate hands and feet. The cheek bones are generally prominent, the eyes black and slightly oblique, the mouth large, with thin lips, the hair brown and bushy. The complexion varies, as in Europe, from the most delicate white amongst the rich to the copper yellow of the shepherds exposed to the inclemency of the weather. Cretinism is general in the upland valleys, leprosy and hydrophobia on the plateaux.

The Tibetans are one of the most highly endowed people in the world. Nearly all travellers are unanimous in praise of their gentleness, frank and kindly bearing, unaffected dignity. Strong, courageous, naturally cheerful, fond of music, the dance and song, they would be a model race but for their lack of enterprise. They are as easily governed as a flock of sheep, and for them the word of a lama has force of law. Even the mandates of the Chinese authorities are scrupulously obeyed, and thus it happens that against their own friendly feelings they jealously guard the frontiers against all strangers.

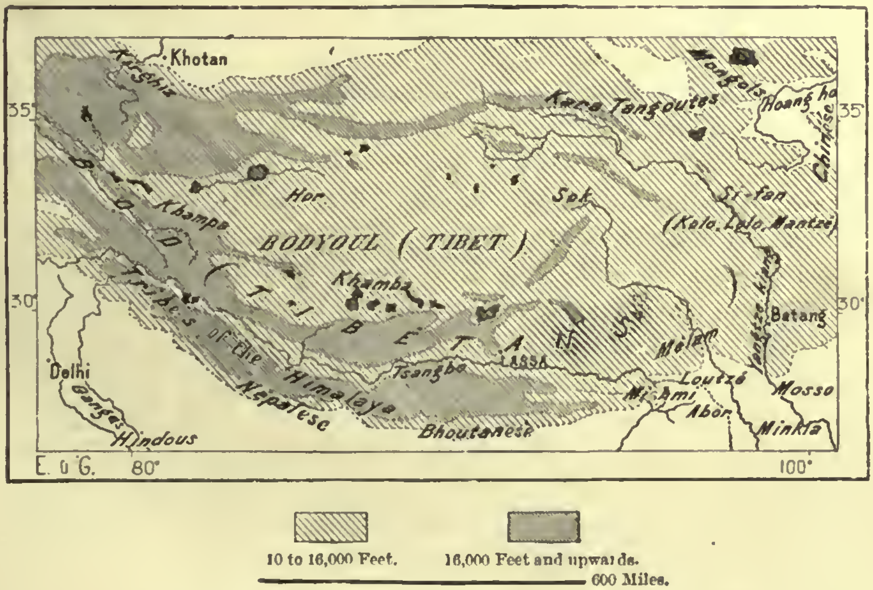
The more or less mixed races of East Tibet on the Chinese frontier, on the route of the troops that plunder them and of the mandarins who oppress them, seem to be less favourably constituted, and are described as thievish and treacherous. Amongst the peoples of the plateau the Khampas and Khambas are to be carefully distinguished. The Khampas of the Upper Indus valley resemble the Tibetans of Ladak. They are always cheerful, even under what to others would seem to be unspeakable misery. But the religious sentiment is little developed amongst them, and none of their children ever enter the monastic orders. The Khambas are immigrants from the province of Kham, east of Lassa, who visit all the camping grounds as far as Kashmîr as professional beggars. But a few groups have here and there abandoned the nomad life and taken to agriculture.

The Tibetans have long been a civilised people. Stone implements have no doubt been retained for certain religious ceremonies, and the stone age itself still partly continues on the upland plateaux, where many shepherd communities use stone cooking vessels. But even these are acquainted with copper and iron, while the rest of the nation is one of the most highly cultured in Asia. In some respects they are even more civilised than those of many European countries, for reading and writing are general accomplishments in many places, and books are here so cheap that they are found in the humblest dwellings, though several of these works are kept simply on account of their magical properties. In the free evolution of their speech, which has been studied chiefly by Foucaux, Csoma de Körös, Schiefner, and Jäschke, the Tibetans have outlived the period in which the Chinese are still found. The monosyllabic character of the language, which differs from all other Asiatic tongues, has nearly been effaced. The official style, fixed by the priests twelve hundred years ago, is still maintained in literature, but the current speech has gradually become polysyllabic, and the practice of distinguishing the sense of monosyllables by their varied intonation is beginning to disappear. Old words, whose meaning has been lost, have been agglutinated to the roots to form nominal and verbal inflections, and the article is employed to distinguish homophones. The various alphabetical systems are derived from the Devanagari introduced from India by the first Buddhist missionaries. The present pronunciation of few other languages differs more from the written form than does the Tibetan, whose ancient orthography has been scrupulously maintained for centuries. Many of the written letters are either silent or sounded differently, just as *gh* in the English words *enough, rough,* is pronounced *f*, while it is mute in *plough, bough.* So in Tibetan *dbjus* becomes simply *û*; *bkra shis lhun po* = *Tashilunpo*, &c.

The Tibetan dialects are both numerous and highly differentiated from each other. Although the peoples of Bod stock stretch beyond the present frontiers into Kashmîr, Bhutan, and Sechuen, west, south, and east, nevertheless several of the wild or barbarous tribes in the east and north belong to different races more or less mixed together. In the south the Mishmis, Abors, and others are allied to the hillmen of Assam; while the Arru, Pa-i or Ghion, Telu, and Remepang all speak varieties of the Melam, an archaic and polysyllabic Tibetan language mixed with many foreign elements. The Amdoans of the north-east, near the Kansu frontier, are

nearly all bilingual, speaking both their mother tongue and Tibetan. A nomadic and migrating people, they are distinguished by their quick wit and aptitude for all kinds of work. Nearly all the lamas and teachers of the high schools as well as the higher officials throughout Tibet are of Amdoan stock. West of the province of Kham the half-savage Lolo, Mantz', Lissu, and others, collectively known to the Chinese as *Si-fan*, or "Western Strangers," and to the Tibetans as *Gyarungbo,* from the chief tribe Gyarung, dwell on both sides of the Sechuen frontier, where they form distinct ethnical groups, some speaking Tibetan dialects, others languages of different origin. Most of the names applied by the Chinese and Tibetans to the peoples of this region can only be accepted provisionally. They are either vague designations, or injurious epithets indignantly rejected by the tribes themselves. Chinese influence is making itself felt more and more in the neighbourhood of

Fig. 16.—Tibetan Ethnography.
Scale 1 : 22,000,000.



Sechuen and in the large Tibetan towns. Access to the country being completely interdicted to the Chinese women, all the mandarins, soldiers, officials, and traders take Tibetan wives temporarily, and the frontier population already consists largely of cross-breeds, who are grouped according to circumstances as Tibetans or Chinese.

The Chinese immigrants are not the only strangers in the Tibetan towns. The Nepalese and Bhutanese from beyond the Himalayas are very numerous in Lassa, where they are chiefly occupied with metal work and jewellery. They occupy a separate quarter, and are distinguished by their superstitious practices. Here are also some Mohammedans originally from Kashmîr, the so-called Khachi, a fine race with long beard and grave demeanour, who keep entirely aloof from the rest of the population, and live under a special governor recognised by the Tibetan authorities.

Buddhism.

Tibet is the centre of Buddhism, a religion rivalling Christianity in the number of its followers. But although the most zealous of Buddhists, the Tibetans have modified their cult under the influence of previous rites, climate, social habits, and relations with the surrounding nations to such an extent that it only bears an outward resemblance to the primitive religion of Shakya-muni. After three centuries of preliminary efforts the Hindu missionaries began the serious work of conversion in the fifth century. Previous to that time the Tibetan rites, analogous to those of the Chinese Taoism, consisted in making offerings accompanied with prayers to the lakes, mountains, and trees, representing the forces of nature. Two hundred years passed before this Bon- or Pön-bo religion yielded to the new worship, the first temple of which was erected in 698. Within the next century the country was covered with monasteries, and the religion of Buddha was diffused "like the light of the sun" throughout Tibet. This was the golden age of theocracy, for according to the Mongolian historian Sanang Setzen "the boundless veneration for their priests gave to the people a bliss like that of the happy spirits." Still the older rites do not seem to have entirely vanished, as, according to the same writer, "the love of good thoughts and of meritorious deeds was afterwards forgotten like a dream." The doctrine was not fully enforced till the close of the tenth century, when it soon began to split into various sects. Four centuries afterwards came the great revival. The monk Tsonkhapa undertook the revision of the sacred writings, formulated new precepts, and modified the ritual. His disciples are the "Yellow Caps," or Geluk-pa, who prevail in Tibet, while the older sect of the "Red Caps" (Duk-pa, or Shammar) has held its ground in Nepal and Bhutan. But for both, as well as for the other seven sects of Tibet, red has remained one of the sacred colours of the cloister and temples. According to the ordinances, the religious edifices, usually of pyramidal form, should have the north front painted green, the east red, the south yellow, the west remaining white.

By his followers Tsonkhapa was regarded as the incarnation of the deity, as a living Buddha, who had put on the appearance of human nature. He never dies, but passes from body to body under the form of a *Khubilgan*, or "New-born Buddha," and is in this way perpetuated as the Tashi-lama in the holy monastery of Tashi-lumpo, near Shigatzé. Another living Buddha has sprung up by his side, and acquired even greater political power, thanks to his residence in the capital and to his direct relations with the Chinese officials. This is the Dalai-lama, or "Ocean lama," whose instalment on the throne of Buddha is variously related. But whether due to a Mongolian invasion, or to the action of the Chinese emperor in the sixteenth or seventeenth century, the ecclesiastical prince of Lassa has taken rank amongst the immortal gods, who by a new birth ever renew themselves from generation to generation. A third living Buddha in this hierarchy is the chief lama of Urga in Mongolia. But there are several others, and even in Tibet itself the head of a nunnery on the south side of Lake Palti is also regarded as a divine female Buddha.

Amongst the Tibetan Buddhists some few mystics, attracted by the sublime speculations of the Hindus, have remained faithful to the doctrine of the early missionaries, aiming at redemption from all future metempsychosis, or at ideal perfection, by the destruction of all that is still material in them, and by a new birth in the bosom of the immutable Divinity. Even the doctors of Buddhism class the faithful in three groups—the enlightened, those of moderate intelligence, and the vulgar. But for the mass both of lamas and people religion is reduced to a system of magic, in which worship has no object except to conjure the evil spirits.

The life of most Tibetans is passed in ejaculations and adjurations under the form of prayers. The six magic syllables, *Om mani padme hûm*, usually translated,

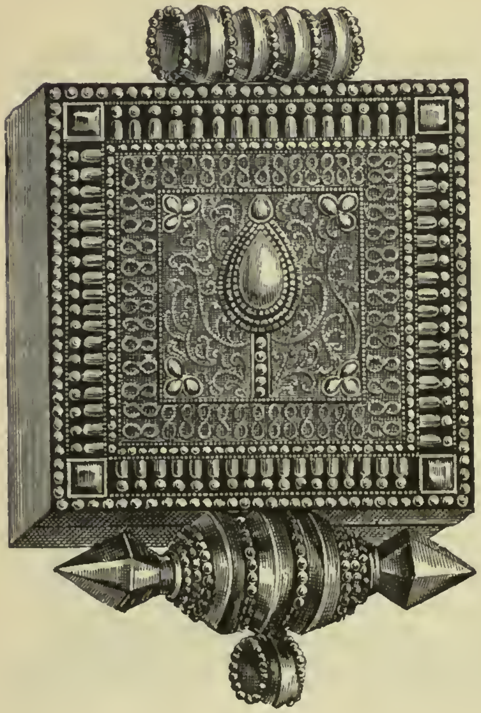
Fig. 17.—Prayer inscribed on a Rock.

"O gem of the lotus, amen!" but which some commentators declare to be untranslatable, are the form of prayer most frequently repeated. These sacred words, each of which has a special virtue, are the first taught to the Mongolian and Tibetan child. They will form his only prayer, but this he will go on repeating incessantly, ignorant alike of its origin or sense. The importance attached to it may be judged from the fact that for 150 million copies printed in St. Petersburg Schilling of Cannstadt received from the Buriat lamas of Siberia a complete copy of their inestimable sacred book. The invocation is met everywhere—on the walls of the houses and temples, by the wayside, under colossal statues rudely carved in the live rock. Certain *maneh*, or retaining walls, along the roads are built of stones, each of which bears the magic formula. Brotherhoods have been formed for the

sole purpose of having it inscribed in large characters on the hillside, so that the traveller galloping by on horseback may read the words of salvation.

Everybody wears on his clothes, arms, or neck gold, silver, or other metal amulets, containing, besides the all-powerful prayer, little idols or relics, the teeth, hair, or nails of canonised lamas. The *korlo, khorten*, or prayer-mills, employed in all Buddhist lands except Japan, are most universal in Tibet. The very forces of nature, wind and water, are utilised to turn these cylinders, each revolution of which shows to the all-seeing heavens the magic words regulating human destinies. Like the Kirghiz, the Buriats, Tunguses, and other Central Asiatic peoples, the Tibetans are accustomed to set up on the hill-tops poles with banners containing the same formula, which is thus, so to say, repeated with every puff of air. One of these *lapchas*, as they are called, has been planted on Mount Gunshakar, over 20,000 feet high. The Buddhist pilgrims also take ammonites to the highest peaks of the ranges, and, to conjure the evil spirits, near these fossils they place as offerings the bones and skulls of the great wild sheep, or *Ovis ammon*.

Fig. 18.—Tibetan Amulet.



Most of the gilded images in the temples are simple reproductions, copied for some thousand years, of the idols seen in India; hence in their expression they bear no resemblance to the Tibetan type. Every trait or special form having a symbolic meaning, nothing can be changed. The other images of native type represent the gods only of an inferior order, and are reproduced especially in the coloured butter statuettes, in making which the lamas excel. But while the greater deities are Hindus, one might almost fancy that the general ritual is of Roman Catholic origin. The extreme analogy has long been remarked between the Buddhist and Catholic rites, and most of the missionaries have explained this identity of outward worship as an artifice of the devil trying to ape the God of the Christians. Others have endeavoured to show that the Buddhist priests, after abandoning their old practices, simply adopted the ceremonial of the Christians in India, with whom they had established relations. We now know what a large share both of these relatively modern religions have had in the inheritance of the primitive Asiatic cults, and how the same ceremonies have been transmitted from

age to age in honour of new divinities. None the less surprising is it that, in virtue of a parallel evolution in two distinct centres, the outward forms of Buddhism and Catholicism should have maintained their resemblance, not only in their main features, but even in their details. The Buddhist priests are tonsured like those of Rome; like them, they wear flowing robes covered with gold brocade; they fast, hold spiritual retreats, mortify the flesh, confess the faithful, ask for the intercession of the saints, and make long pilgrimages to the holy shrines. Celibacy also, originally a meritorious act, has become the rule for the lamas, and by the side of the temples there have sprung up communities of men and women whose only aim in life is to work out their spiritual welfare. Everything is alike even in the internal arrangement of the sacred edifices—the same altars, candelabra, bells, reliquaries, holy-water fonts. The lamas officiate with mitre and crosier, and robed in dalmatica and cope. They bow to the altar and kneel before the relics, intone the service, recite the litanies, utter words in a language unknown to the congregation, solicit offerings for the repose of the faithful departed, lead the processions, pronounce blessings and exorcisms. Around them the youths of the choir sway the censers suspended with five chains, while the congregation tell their beads and rosaries.

In other respects also the Tibetan clergy, recruited principally from the first-born of every family, resemble the priests of mediæval times. From them flows all knowledge; the printing establishments are in their cloisters; and besides the sacred writings, the "Kanjûr and Tanjûr," printed for the first time about 1750 in 337 volumes, they take care that nothing is published except works in harmony with the faith, dictionaries, encyclopædias, or scientific serials, besides numerous books of magic. It is also the lamas—that is, the "unsurpassed"—who administer justice, and who through the tithes and traffic have got possession of the national wealth. Although Buddhism was at first the religion of equality, and attracted the poor by the abolition of caste, it reinstated caste by the supremacy of the priesthood. They command, and all obey; the unity of faith is absolute around each monastic centre. The conversion of the Tibetan prelates would involve that of the whole nation, and of millions of Buddhists beyond the frontiers. In striking at Lassa, the Roman missionary strikes at "the idol on its throne," and "to triumph here means to grasp the sceptre of High Asia." Everything would be prepared beforehand for the acceptance of the religion of the West. To form a native clergy the church would have at hand legions of lamas already accustomed to the laws of celibacy and the hierarchy. To receive her monastic orders she would have numerous Buddhist convents already devoted to abstinence, to prayer and study. To display the pomp of her magnificent ritual she would have temples where have long been celebrated imposing rites. Nowhere has Catholicism taken such a hold on the people as on the South American uplands inhabited by the Quichuas. But, as Markham remarks, the Ecuador and Peruvian Andes are the Tibet of the New World in all that regards their industries, food, manners, and customs. Quichuas and Tibetans cross the mountain passes in the same spirit of awe, and before the cairns of sacred stones recite their prayers with the same devotion.

During the present century the repeated efforts of the missionaries to get a footing in Tibet have all failed. Huc and Gabet could only remain for two months at Lassa in 1846, and later on others perished in the attempt to penetrate into the country. In the south-east a few priests were more fortunate. In 1854 they contrived to found a small agricultural colony amid the Bonga forests, near the left bank of the Upper Salwen. With the aid of Chinese immigrants and of numerous slaves, they cleared the ground and established a flourishing village. A lama convent became a presbytery, a pagoda was transformed to a church, in which converted lamas performed the functions of sacristans. But this prosperity did not last long. After many vicissitudes the missionaries were obliged to quit Tibetan soil, and then the buildings were given to the flames. The mission was re-established in Sechuen, close to Tibet, but the fathers no longer dare to cross the frontier.

Nearly all the lamas, at least in the central region, belong to the sect of the "Yellow Caps," by whom the few remaining "Red Caps" are despised, because they have not taken the vow of celibacy. But the primitive Pön-bo or Bon-pa religion has not yet quite disappeared. Its priests have several monasteries, especially in the south-east, and in the petty state of Pomi, west of the Salwen. They believe in two great gods, a male and a female, parents of all the other gods, spirits, and mortals. But in other respects they have gradually conformed to Buddhism, of which they are now merely a distinct sect. The highlanders of Ombo and the Dangra-yum, who practise different rites from the other Buddhists, also seem to belong to the old religion. Their mystic formula is not the *Om mani padme hûm*, and they count their rosary beads and walk in procession backwards; that is, in the opposite direction to the orthodox practice.

Lastly, some of the half-savage tribes on the Yunnan, Assam, and Burmese frontiers still observe fetish rites. Amongst them are the Lu-tz', who have given their name to the Lu-tze-kiang, or Upper Salwen, and who worship the trees and rocks inhabited by the evil spirits. They also employ the *mumos* (*murmis*), or sorcerers, to conjure the bad genii by beating drums, wielding swords, and burning incense.

Diet—Social Customs—Population.

Milk, butter, and barley-meal form the chief diet of the people of the plateau. But in spite of the first commandment of Buddha forbidding the slaughter of animals, most Tibetans, and even the lamas, add the flesh of their domestic animals to their modest fare. However, they make amends by despising the hereditary caste of butchers, whom they confine to remote suburbs of the towns. The mutton of Tibet, "the best in the world" (Turner), is universally consumed, and in winter whole bodies of these animals are preserved in a frozen state. Game is taken with the dart, arrow, and gun, while the musk deer is usually trapped. The only animal spared in East Tibet is the stag, "Buddha's horse." On the plateaux skirting the north bank of the Tsangbo liquid blood forms a part of the diet, and Nain Singh often saw the shepherds falling prostrate on the ground to lap up the

blood flowing from the slaughtered animals. This taste is acquired by the children as soon as weaned. Being unable to procure them pap from the dearth of corn on the uplands, their mothers make them a mess of cheese, butter, and blood. Prjevalsky tells us that in these regions the horses are also fed on flesh and curdled milk.

The Tibetans are distinguished from their co-religionists of other countries by their national habits, which have been scarcely modified by Buddhism. Thus those of the south, like their neighbouring kinsmen of Bhutan, practise polyandria, in order to avoid dividing the family inheritance, and to reside all under one roof. The eldest son presents himself before the bride's parents on his own and all his brothers' behalf, and as soon as a bit of butter has been placed on the forehead of the couple the ceremony is valid for the whole family. The priests, bound by their vows to keep aloof from women, do not assist at this purely civil ceremony, which is witnessed by all present on the occasion. The issue of these collective unions give the name of father to the eldest brother, and regard the others as uncles, unless the mother, when consulted, determines the paternity. Travellers tell us that matrimonial squabbles are unknown in these polyandrous familes, in which the men vie with each other in their eagerness to procure the coral, amber, and other ornaments affected by the common wife. Respected by all, she is generally a thrifty housekeeper, besides lending a hand in the field and tending the herds. But her work, like that of the brothers, belongs to the whole family.

By the side of these polyandrous households some wealthy Tibetans, in imitation of the Chinese and Mussulmans, keep several wives, who reside either under the same roof or in separate dwellings. But both polyandria and polygamy alike have the same result of keeping down the population. Marriage is regulated by no rules in a country where celibacy is so rigorously enforced on a large section of the people, and where the polyandrous wife has still the right, recognised by custom, to choose another husband beyond the family circle.

As in China, courtesy is held in high honour in Tibet. When two persons meet they salute each other several times by showing the tongue and scratching the right ear, or even by exchanging white or pink embroidered silk scarfs, sometimes accompanied with letters or other missives. In Lassa and other towns ladies of rank wear coronets of true or false pearls or turquoise, shells, or silver. But Huc's statement that they are obliged to disfigure themselves by daubing the face with a sort of black varnish is denied by the English travellers.

All ceremonies are regulated beforehand, and the form and colour of the clothes suitable for the various social occasions are prescribed by rigid custom. During the year of mourning the men lay aside their silk garments, the women their jewellery. Immediately after death the hair is torn from the crown of the head, in order to insure a happy transmigration, and the body is preserved for some days, and in wealthy families even weeks, when the priests decide whether it is to be buried, burned, cast to the running waters, or exposed to the beasts of prey. In the latter case the bones are first broken and the body cut in pieces, in order to hasten the return to the first elements, and what is left by the animals is collected

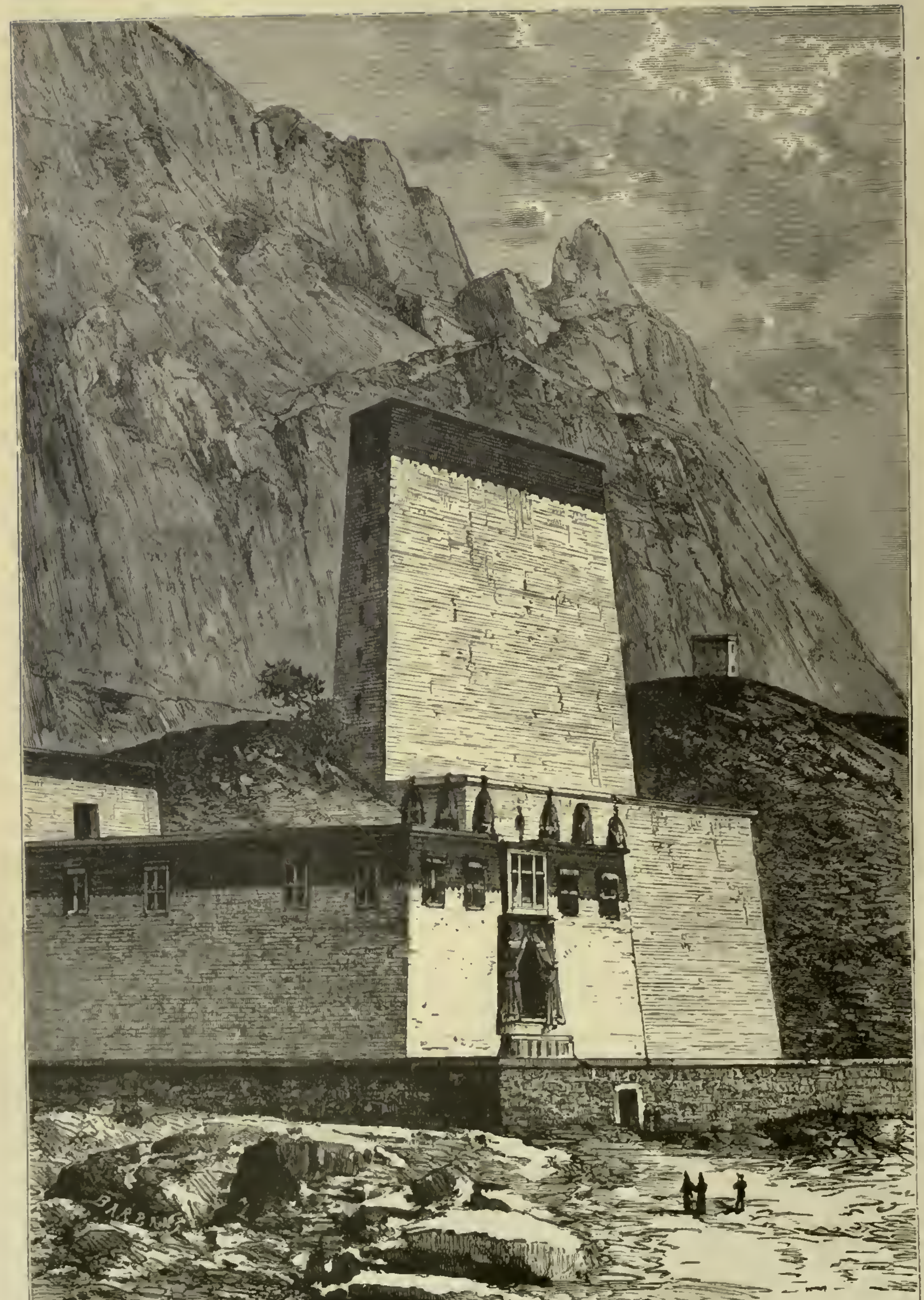
and thrown into the stream. The finger joints are also often preserved and strung in chaplets, while the bones of arms and legs are converted into trumpets for summoning the lamas to prayer. The lamas themselves are always buried in a sitting attitude, and the practice of delivering the bodies to wild beasts seems to have disappeared from West Tibet. But it still flourishes at Kiangka, in the province of Kham, where a butcher cuts up the body, and the vultures alight in the midst of the crowd to gorge on the flesh, accompanying the monotonous tones of the lamas with the flapping of their wings and the snapping of their bills. Yet there are few countries where the dead are held in greater respect than in Tibet. Grand feasts are celebrated in their memory, and all passers-by are invited to the funeral banquets. At night the houses are illumined and bonfires blaze on the hill-tops, while the temples, aglow with light, echo to the sound of cymbals and hymns in honour of the departed.

According to the missionary Orazio della Penna, an official census made by the "royal ministers" in the last century gave the population of Tibet as 33,000,000, of whom 690,000 were under arms. But while quoting this statement Klaproth adds that 5,000,000 would be, perhaps, nearer the truth. Behm and Wagner stop with the officers of the Russian staff at 6,000,000, but only because this forms the mean between the two extremes, 3,500,000 and 11,000,000, recently proposed by various geographers. The population would thus amount to about 8 persons to the square mile, but it is known to be very unequally distributed. The Khachi plateau is almost uninhabited, and in the south-west province of Hundes, or Nari (Ngari, Gnari Khorsûm), there are only a few scattered groups. Owing to its forests, mountains, and inaccessible ravines, the eastern province of Kham is very unequally inhabited, so that the population is concentrated chiefly in the two southern provinces of Tsang and Wei (U, Wi) along the Middle Tsangbo, and in its lateral river valleys.

Topography.

Daba and most of the so-called towns and villages in the Upper Satlaj valley are abandoned during the winter season. *Puling*, the highest permanently inhabited village in this part of Tibet, stands at an elevation of 13,800 feet above the sea. *Tsaprang*, like Daba capital of a district, and situated to the north-west of this place at a height of 15,400 feet, and far above the head-waters of the Satlaj, is also unoccupied for a part of the year, and in summer contains no more than some fifteen dwellings. The fortress of *Takla-khar*, another district capital, lies on the southern slope of the Himalayas, on the right bank of the Map-chu, or "Great River," the main branch of the Karnali of the Nepalese. The fort consists of excavations and galleries hollowed out of a rock 830 feet high. It contains large stores of supplies, and the corn deposited here for half a century is said to be in perfect condition, thanks to the dryness of the air. West of Takla-khar stands Sitling-gonpa, the largest monastery in Hundes, and noted throughout Tibet and Nepal for its immense wealth.

The Upper Indus basin, like that of the Satlaj, is almost uninhabited. Yet



MONASTERY AT SHIGATZÉ.

here is the temporary capital of the south-western province of Tibet, *Gartok*, on the Gartung. The name means "High Market," and the place probably contains the most elevated hay market in the world. In August and September the little clay or adobe houses become the centre of a town consisting of tents, each by its shape betraying the origin of the trader occupying it. The dwellings of the Tibetans, covered with long black-haired yak hides, contrast with the white pavilions of the Hindus, while the Yûrts of the Kashgarian and other Tatars are distinguished by the bright colours of their felt awnings. But in winter Gartok is left to the winds and snow-sleighs, the traders returning to their distant homes, and the few residents retiring to *Gargûnza*, a more sheltered village on the Gartung, above the junction of this river with the Indus. *Radokh*, near Lake Mognalari, is a mere heap of hovels grouped round a fort and monastery.

The plateau lying east of the Upper Indus valley has from the remotest times been known by the name of Sarthol, or "Land of Gold," and here are still grouped a few communities of gold-seekers. The workings had long been abandoned, owing to the severity of the climate, but were reopened at the beginning of this century by the Tibetan Government. Here Tok-yalung is probably the highest place on the globe inhabited throughout the year, standing as it does some 16,900 feet above the sea, or nearly 650 feet above Mont Blanc, in an atmosphere scarcely half as dense as that on the surface of the ocean. Yet it is chiefly frequented in winter, when as many as six hundred tents of miners are hidden away in deep hollows, above which nothing is visible except their cones of black hair. In summer their number is reduced by one-half, because the neighbouring springs then become so saline that the water is unpotable until purified by the freezing process. In this part of the plateau salt and borax are everywhere found by merely digging up the surface. The other gold-workings are less productive than those of Tok-yalung, and according to Nain Singh none of them, except Tok-daûrakpa, lying much farther east, possess any economic importance. The annual yield of all the mines in West Tibet is only about £8,000, which is forwarded to India through Gartok.

In the Tsangbo valley the highest inhabited points are either the convents or the postal stations. Here the cold is too intense to allow any permanently occupied villages to be formed. Yet real towns begin to appear in the valley at more than double the elevation of the Simplon and Gothard. *Tadum*, capital of the Dogthol district, is 14,000, and *Janglacheh*, at the junction of the two Nepal routes from Kirong and Nilam, 13,850 feet above the sea. *Shigatzé*, or *Digarchi*, capital of the province of Tsang, lies at a relatively lower altitude in the side valley of the Penang-chu, 11,730 feet high. Above it are the houses and temples of Tashi-lumpo, or "Exalted Glory," residence of the Tashi-lama, Teshu-lama, or Panchen-rimbocheh; that is, the "Jewel of Intelligence." The walls of the holy city have a circuit of nearly a mile and a quarter, and enclose over three hundred edifices grouped round the palace and sacred monuments. From 3,000 to 4,000 lamas occupy the monastery, whose gilded belfries and red walls tower above the mean houses of the lower town.

Most of the other towns in this region also consist of low dwellings commanded

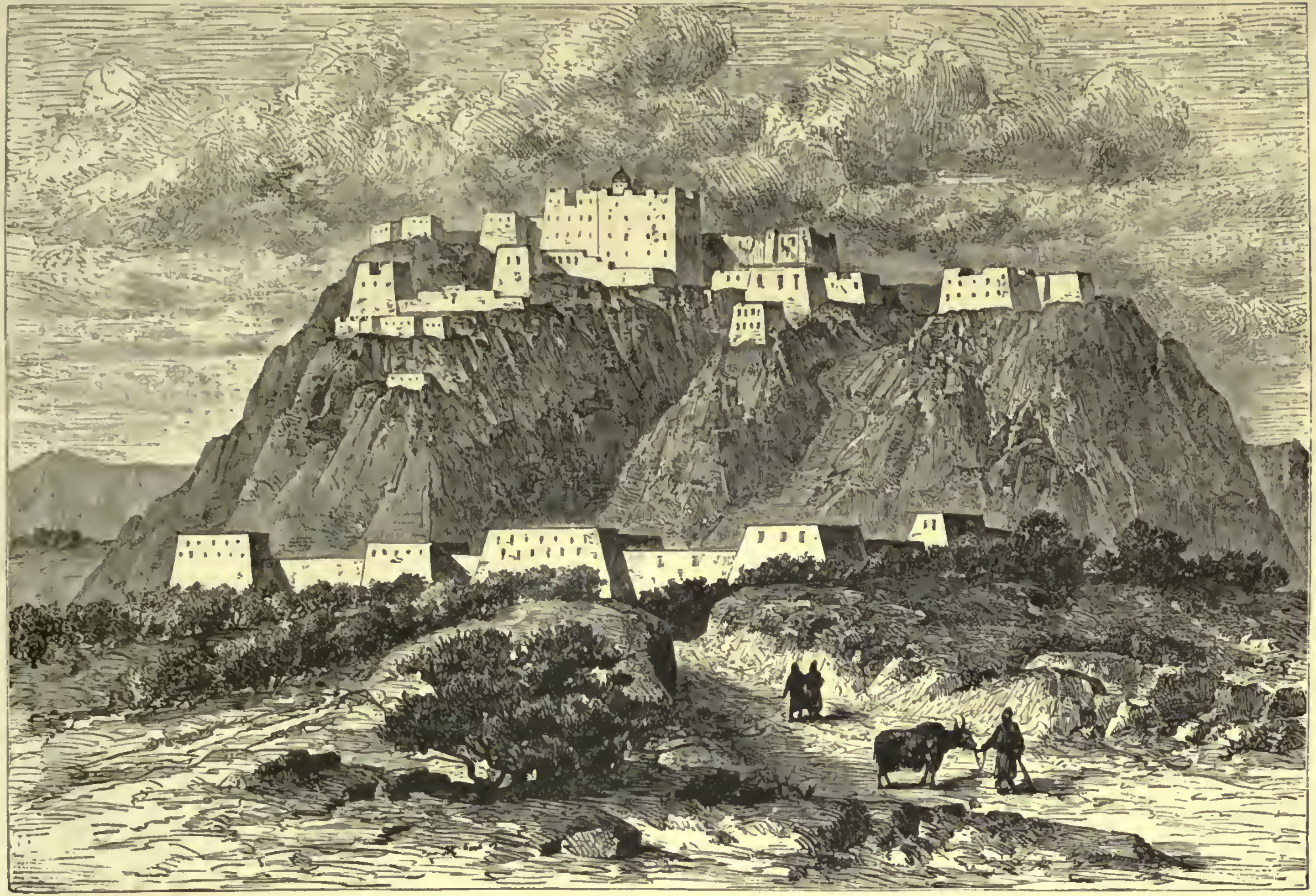
by magnificent buildings, which are palaces, fortresses, temples, and monasteries all in one. Such are, on the north side of the Tsang valley, the towns of *Namling*, or "Heavenly Garden," and *Shakia-jong*, south-west of Shigatzé, near the Sikkim frontier. *Gyanzeh*, south-east of Shigatzé, is an important town, as the centre of trade with Nepal and a manufacturing place, producing cloth goods, very warm, pliant, and soft to the touch. Like Tingri, it is held by a strong Chinese garrison. Shigatzé is the future terminus of the carriage road which is being constructed by the Indian Government, and which starts from Darjîling, in Sikkim.

*Lassa** is at once the capital of the province of Wei and of Tibet, as well as the religious metropolis of the Buddhist world in the Chinese Empire. The name means "Throne of God," and for the Mongolians it is the Morke-jot, or "Eternal Sanctuary." The number of priests, estimated at some 20,000 in Lassa and neigh-

Fig. 19.—Lassa.
Scale 1 : 1,425,000.

bourhood, probably exceeds that of the civil population, which, however, is constantly swollen by crowds of pilgrims from all parts of Tibet, and even from beyond the frontiers. Along the two great avenues lined with trees, which lead from the city to the palace of the Dalai-lama, the courtly prelates, clothed in sumptuous robes and mounted on richly caparisoned horses, are met haughtily riding through the multitude of devotees. The palace of Potala, residence of the sovereign, forms a group of fortifications, temples, and monasteries, surmounted by a dome entirely covered with gilded plates and surrounded by a peristyle of gilded columns. The present edifice, reconstructed by Kang-hi and filled with treasures from every part of Tibet, Mongolia, and China, has replaced the palace destroyed by the Zungarians in the beginning of the eighteenth century. This "Mountain of

* The current forms Hlassa, Hl'assa, L'hassa, Lhassa, do not reproduce the local pronunciation of this word, which is simply Lassa (Jäschke).



LASSA—LAMASSERY OF POTALA IN THE SEVENTEENTH CENTURY.

Buddha" has for the last twelve hundred years been the most hallowed spot in East Asia. When its shadow is projected by the setting sun on the azure sky all work ceases in the city. The inhabitants gather in groups on the terraces, in the streets and public places, casting themselves prostrate on the ground, and raising a muffled evening song of praise towards the sacred shrine.

The city stretches south of the holy mount along the right bank of the Kichu, a large affluent of the Tsangbo. Although 11,580 feet high, or 480 feet above the highest peak in the Pyrenees, the surrounding district is covered with vegetation, thanks to its more southern latitude and sheltered position. The streets are broad and regular, and flanked by whitewashed houses of stone, brick, and earth. One of the quarters is entirely built of the interlaced horns of sheep and cattle in alternating layers of various forms and colours. These horns, the interstices of which are filled in with mortar, lend themselves to an endless variety of design, imparting to the houses the most fantastic appearance.

The towns and villages of the neighbourhood derive, like Lassa itself, more importance from their *gonpa*, or monasteries, than from their trade and industries. During the feasts of the new year, when the monks enter the town on foot or mounted on horses, asses, or oxen loaded with prayer-books and cooking utensils, the streets, squares, avenues, and courts are covered with tents. The whole civil population seems now to have disappeared, or to have given place to the lamas. The Government officials themselves have no longer any authority, and the religious element takes possession of the city for six days. After visiting the convent of Muru, where they purchase their supplies of devotional works in the printing establishments, the priests withdraw to their respective monasteries, and the city resumes its normal aspect.

Most of the gonpa are simply groups of little houses with narrow, crooked streets radiating from a central edifice containing the shrines and library. But some of the thirty convents around Lassa have become veritable palaces, enriched by the offerings of generations of pilgrims. That of *Debang*, some 4 miles west of the city, is said to have from seven thousand to eight thousand lamas. The monastery of *Prebûng*, or the "Ten Thousand Fruits," receives the Mongolian priests yearly visiting the Dalai-lama. No less celebrated are *Sera* with its five thousand five hundred inmates, and *Galdan*, 30 miles north-east of Lassa, rendered illustrious as the residence of Tsonkhapa, reformer of Tibetan Buddhism. But the most famous is *Samayeh*, said to have been built by Shakya-muni, and one of the largest and wealthiest in Tibet. It is enclosed by a lofty circular wall nearly 2 miles in extent, and its temple, whose walls are covered with beautiful Sanskrit inscriptions, contains numerous statues of pure gold covered with precious stones and costly robes. The head of this convent is popularly supposed to stretch his power beyond the grave, rewarding and punishing the souls of the dead. In his charge is the Government treasury.

Samayeh lies some 24 miles to the west of the important town of *Chetang*, on the right bank of the Tsangbo, and the starting-point for traders proceeding to Bhutan and Assam. The frontier entrepôt in this direction is *Chona-jong*, where

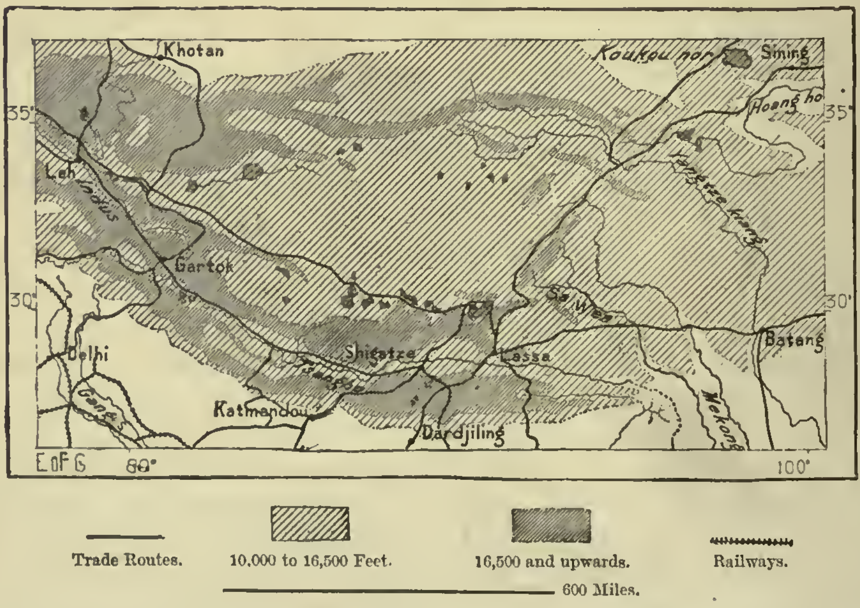
salt, wool, and borax are exchanged for coarse woven goods, rice, fruits, spices, and dyes. Nain Singh regards this town as the chief trading-place in Tibet.

In the eastern districts, where the population is scattered about the narrow mountain gorges, there are but few towns. The most important, as administrative capital of the province of Kham, is *Chambo, Tsiambo,* or *Chamûto;* that is, "Two Routes," a name indicating its position at the junction of the two head-streams of the Lantzan-kiang, or Upper Mekhong. It is a large place, with a monastery of over one thousand lamas in the vicinity. Farther south is *Kianka,* or Merkam, on a tributary of the Kinsha-kiang, south of which are some rich saline springs on the banks of the Lantzan-kiang.

Trade and Trade Routes.

Cultivating little land, and possessing nothing beyond its flocks and a few unimportant industries, Tibet could scarcely enjoy much intercourse with foreign

Fig. 20.—Trade Routes of Tibet.
Scale 1 : 22,000,000.



lands, even were it not enclosed by a barrier of political and commercial obstacles. Much of the abundant raw material is required for the local looms, which produce cloth of every kind from the coarsest to the very softest quality. The red *chru,* or *pulu,* intended for prelates, is a fine, stout fabric, which commands high prices in China and Mongolia. Most of the natives of both sexes are skilful knitters, and in this way prepare all the clothing they require. Next to these domestic industries they occupy themselves chiefly with those connected with the service of the temples and monasteries. Their artists display great skill in modelling the statuettes, arti-

ficial flowers, ornaments in butter placed before the idols, while numerous hands are employed in preparing the incense sticks burnt in honour of the gods and genii.

Notwithstanding their simple tastes and frugal lives, the Tibetans still need some foreign wares, of which the most indispensable is tea, the trade in which was till recently monopolized by China. Tea, even more than arms, has been the instrument by which the Chinese have conquered the country, and "to invite the lamas to a cup of tea" has become a proverbial expression, indicating the means employed by the Mandarins to bribe the Tibetan rulers. Hence the care taken by the Imperial Government to prevent the introduction of the Assam tea, which, in any case, is less esteemed than that of China. Still the natives of the independent state of Pomi have preserved their right to free trade with India, whence they import the prohibited article in yearly increasing quantities. The annual importation from China is estimated by Baber at about 10,000,000 lbs., representing from £300,000 to £350,000.

The exchanges with India are at present quite insignificant, and the little received from that country comes mainly through Nepal and Kashmîr. The exports to India are ten times in excess of the imports, the chief item being the costly wools, which ultimately reach the manufacturing towns of Yorkshire. There is thus a constant flow of rupees into Tibet, where this coin is gradually replacing the "bricks of tea" hitherto used as currency. Needles also are much used in petty dealings, and ingots of silver in wholesale transactions.

The Tibetans are born traders, dealing indifferently in anything that may offer a chance of turning "an honest penny." Every house is a shop, every lamassary a warehouse. The monasteries have all their *garpön*, or chief agent, under whom are a host of employés and pack animals. Caravans of yaks and sheep heavily laden cross the country in all directions, although the great highway is the route leading from Lassa through Tatsienlu and Sechuen to the heart of China. Another route to China runs from Lassa north-eastwards across Mongolia, while several roads lead southwards to Assam and Bhutan, south-westwards to Nepal, westwards to Leh and Kashmîr. This last, probably the most important for the European trade, is traversed by caravans of silks, shawls, saffron, and other wares, leaving Leh in April and reaching Lassa the following January. At Gartok, Lake Mansaraûr, Shigatzé, and other stations along the route, fairs are held, often lasting several weeks. After an absence of about eighteen months the caravan re-enters Leh with tea, wool, turquoises from the Kuen-lun, borax, &c. The districts through which it passes are bound to supply it gratuitously with two hundred yaks as beasts of burden, besides provisions for the travellers. Along the southern frontier the Himalayan passes are every year formally opened for traffic by proclamation of the nearest local Tibetan *dzongpon*, or governor. In case of war, disturbances, or cholera in India, they are kept closed pending instructions from the central Government at Lassa. Nearly all the profit of this foreign trade goes to the monasteries, which, by monopolies and usury, swallow up all the savings of the country. Thus, notwithstanding its natural poverty, Tibet supports in wealth and luxury a whole nation of monks.

Administration—Penal Code—Postal Service.

The Tibetan Government is in theory a pure theocracy. The Dalai-lama, called also the Gyalba-remboché, "Jewel of Majesty," or "Sovereign Treasure," is at once god and king, master of the life and fortunes of his subjects, with no limit to his power except his own pleasure. Nevertheless he consents to be guided in ordinary matters by the old usages, while his very greatness prevents him from directly oppressing his people. His sphere of action being restricted to spiritual matters, he is represented in the administration by a viceroy, chosen by the Emperor in a supreme council of three high priests. This is the Nomakhan, or Gyalbo, who acts either directly, or through four ministers (Kastaks or Kalons), and sixteen inferior mandarins. The other functionaries are selected by the ministers almost exclusively from the lamas.

But behind this machinery are one or more Kirichai, or Amban, Chinese agents, who control the high officials, and on weighty occasions convey to them the pleasure of his Imperial Majesty. According to the practice of Kang-hi, followed by all his successors, everything connected with general politics and war must be referred to Peking, while local matters are left to the Tibetan authorities. All the civil functionaries are natives of Tibet. The most serious crises occur at the death, or, we should say, the reincarnation of the Dalai-lama in a new-born infant. Then the Khutuktu, or chief prelates, assemble in conclave, passing a week in prayer and fasting, after which the future Pope is chosen by lot. But the election is still controlled by the Chinese embassy, which in 1792 presented to the conclave the magnificent gold vase, whence is drawn the name of the new master of the land, who is invested by a diploma bearing the Emperor's signature. Pope, viceroy, ministers, all receive a yearly subvention from Peking, and all the Tibetan mandarins wear on their hats the button, or distinctive sign of the dignities conferred by the empire. Every third or fifth year a solemn embassy is sent to Peking with rich presents, receiving others in exchange from the "Son of Heaven." The Grand Lama's treasury is yearly increased by a sum of £10,000, which can be touched only in case of war.

The rate of taxation depends rather on custom and the mandarins than on any fixed laws. The whole land belongs to the Dalai-lama, the people being merely temporary occupants, tolerated by the real owner. The very houses and furniture and all movable property are held in trust for the supreme master, whose subjects must be grateful if he takes a portion only for the requirements of the administration. One of the most ordinary sentences, in fact, is wholesale confiscation, when the condemned must leave house and lands, betaking themselves to a camp life, and living by begging in the districts assigned to them. So numerous are these *chong-long*, or official mendicants, that they form a distinct class in the State. In the courts even the inferior mandarins may have recourse to torture, and sentence to the rod, fines, or imprisonment. The higher authorities condemn to exile, amputation of hands and feet, gouging out of the eyes, and death. But, as faithful disciples of Buddha, the lamas refrain from "killing" their subjects, only leaving

them to perish of hunger. With every new year the office of judge is sold to the highest bidder in the monastery of Debang at Lassa. When the lama, wealthy enough to purchase the dignity, presents himself with his silver rod to the public, there is a general stampede amongst the well-to-do artisans, who keep out of the way for the twenty-three days during which he is authorised to indemnify himself by the imposition of arbitrary fines.

Since the cession of Ladak to Kashmîr, and the annexation of Batang, Litang, Aten-tze, and other districts to Sechuen and Yunnan, Si-tsang, or Tibet proper, comprises only the four provinces of Nari, Tsang, Wei, or U, and Kham. Certain principalities enclosed in these provinces are completely independent of Lassa, and either enjoy self-government or are directly administered from Peking. Such especially is the "kingdom" of Pomi, whose inhabitants, with all their devotion for the Dalai-lama, jealously guard their local liberties and right of free trade. Even in the four provinces the Chinese authorities interfere in many ways, and their power is especially felt in that of Nari, where, owing to its dangerous proximity to Kashmîr and India, the old spirit of independence might be awakened. Nor is any money allowed to be coined in Tibet, which in the eyes of the Imperial Government is merely a dependency of Sechuen, whence all orders are received in Lassa.

All the able-bodied male population is supposed to constitute a sort of national guard for the defence of the country. But the only regular troops are Manchus, Mongols, or Tatars, whom the Chinese authorities prefer for this service, ostensibly on account of their hardy and frugal habits—in reality, because they would never hesitate to butcher the natives when called upon by their officers. About four thousand are found sufficient to hold the country, of whom half are stationed in Lassa, the rest distributed in small bodies over the garrison towns of Tingri, Shigatzé, Gyantze, and the frontier stations.

The postal service is conducted with remarkable speed and regularity. The carriers traverse in twenty to thirty days, according to the season, the route between Lassa and Gartok, a distance of 780 miles. They keep the saddle night and day, never stopping except to change horses or for refreshment. To provide for accidents, two riders, each leading two horses by the bridle, accompany them along the route, which is thus traversed at full speed nearly the whole way. To prevent the messenger from undressing at night, his clothes are sealed by a mandarin at starting, and the seal can be broken only by the recipient of the dispatch. In the desert tracts the villages are replaced by the *tarsun*, or postal tents, erected at certain points along the route.

CHAPTER III.

CHINESE TURKESTAN.

The Tarim Basin.

Nomenclature.

THE central Asiatic depression, representing the ancient inland sea that flowed between the Tian-shan and Kuen-lun, bears a great variety of names. The surrounding Turki, Galcha, Mongol, and Tibetan peoples have all their special appellations, which, with the vicissitudes of conquest and migration, have enjoyed each in its turn a passing celebrity. The natives themselves recently spoke of their country as the *Alti-shahr*, or "Six Cities," an expression now replaced by Jiti-shahr, or "Seven Cities;" but even this is restricted to the inhabited portion sweeping in a vast semicircle round the foot of the mountains. The Chinese term Tian-shan Nan-lu, or Southern Tian-shan route, in opposition to Tian-shan Pe-lu, or the Northern Tian-shan route of Zungaria, has at least the advantage of precision, whereas "Kashgaria," the name lately current in Europe, has no *raison d'être* since the collapse of the independent state founded by Yakub of Kashgar. In the same way the expression "Kingdom of Khotan" fell into disuse after the city of Khotan had ceased to be the capital. The term "Little Bokhara," still in use some thirty years ago, pointed at the former religious ascendancy of Bokhara, but is now all the less appropriate that Bokhara itself has yielded the supremacy to Tashkent. Lastly, the expressions Eastern Turkestan and Chinese Turkestan are still applicable, because the inhabitants are of Turki speech, while the Chinese have again brought the country under subjection.

Progress of Discovery.

Although till about the middle of this century it had fallen into almost total oblivion, Chinese Turkestan at all times possessed great importance as a highway of migration or trade between Eastern Asia and the Aralo-Caspian basin. Greek and Chineso traders met on the great "Silk Route," which passed this way,

CHINESE TURKESTAN—TYPES AND COSTUMES.

Scale 1:16.000.000

0 — 600 Sta. Miles

The Tints express the Depression below or Elevation above the Sea Level

TURKESTAN

By E.G. Ra

INNER ASIA.

...in, F.R.G.S.

Below Sea Level | Under 600 ft. | 600 to 1200 ft. | 1200-4000 ft. | 4000-12000 ft. | 12000-18000 ft. | Over 18000 ft.

while Buddhist missionaries, Arab dealers, the great Venetian, Marco Polo, followed by other European travellers in mediæval times, had all to tarry in the oases of Chinese Turkestan on their long journeys across the continent. But so forgotten were the old accounts, that the depression watered by the Tarim was supposed, eighty years ago, to form part of the vast "plateau of Tatary," which was thought to occupy all the interior of the continent. The general form of this great cavity remained unknown till again revealed to Europe by the study of the Chinese documents relating to the Tian-shan Nan-lu.

Adolph Schlagintweit was the first European that reached the Tarim basin from India in the present century. In 1857 he crossed the Karakorum, thence descending to the plains and pushing on to Kashgar, only to be assassinated by

Fig. 21.—Itineraries of the Tian-shan Nan-lu.

Scale 1 : 15,350,000.

6,500 to 13,000 Feet. 13,000 and upwards.

H'wen Tsang. Osten Sacken. Kuropatkin.
Marco Polo. Forsyth. Severtzov.
Schlagintweit. Venyukov. Prjevalsky.
Valikhanov. Gordon. Kaulbars.
Johnson. Regel. Postal Route.

200 Miles.

order of the ruling prince, Vali Khan. Thus were lost to science all his labours, notes, and collections. Eight years afterwards Johnson visited Khotan and the surrounding deserts, and this was the first of the English expeditions inspired by the commercial and political rivalries of England and Russia. In 1868 Shaw undertook the exploration of the trade routes down to the plains, while Hayward received from the London Geographical Society the mission to survey the plateau regions. Hayward shared the fate of Schlagintweit, but Shaw succeeded in collecting much information on the trade of the country, and soon after accompanied the famous embassy to Yakub, sovereign of Kashgaria. Forsyth, the head of the mission, got no farther than Yarkand, but he returned three years afterwards with a more numerous staff of explorers, amongst whom were Gordon, Biddulph, Trotter,

Chapman, Bellew, Stoliczka. The fertile region of the plains was now visited in every direction, while farther west the "Roof of the World" was reached from the Upper Oxus valleys.

Nor were the Russians on their part idle. Valikhanov in 1858, and Osten Sacken in 1867, had crossed the Tian-shan, thence descending from the north down to the Kashgarian plains. In 1876 Kuropatkin penetrated by the Terek-davan route into the Tarim basin, skirting the southern foot of the Tian-shan as far as Lake Karashar. Following in his footsteps, Regel has recently pushed farther eastwards along the "imperial highway" always taken by the Chinese on their military and commercial expeditions towards the Tian-shan. The itineraries of Mushketov and others have now connected this route with those of Kulja on the opposite side, while Prjevalsky, plunging into the desert, has surveyed all the eastern section of the Tarim basin between the Tian-shan and the Altin-tagh. But the regions stretching along the foot of the Kuen-lun, formerly traversed by Marco Polo and Benedict de Goës, still remain unexplored.

Extent—Population—Water System—The Kara-kash.

From the results of the English and Russian surveys Chinese Turkestan would appear to have an area of 480,000 square miles, with a population estimated by Forsyth at no more than 580,000, and which cannot in any case exceed a million. But here water is scarce, and desert begins wherever the flowing stream runs dry. The lofty crests of the encircling ranges often tower far above the snow-line, but the streams discharged by them do not always reach the open plains. They are nevertheless gathered together in sufficient number to develop a large river basin.

East of Khotan none of the Kuen-lun and Altin-tagh torrents reach the central reservoir of this basin except the Cherchen-daria, one of the most copious of all the streams joining the Tarim above Lake Lob. The affluents of the Khotan-daria, one of the main branches of the Tarim, were formerly renowned throughout Asia as the "rivers of Jade." All the Chinese records describe the Khotan as formed of three head-streams, each of which sends down jade pebbles of a special colour. To the east flows the "river of green Jade," to the west that of "black Jade," between the two that of "white Jade." Two at least of these rivers have preserved their name under the Turki forms of Urung-kash ("White Jade") and Kara-kash ("Black Jade"). The latter, by far the largest, rises in Kashmîr, far to the south of the Kuen-lun, at an altitude of over 16,000 feet, and flows from the Kara-korum through a succession of gorges down to the northern base of the Kuen-lun, finally escaping through the Shah-i-dulah ravine to the plain of Khotan.

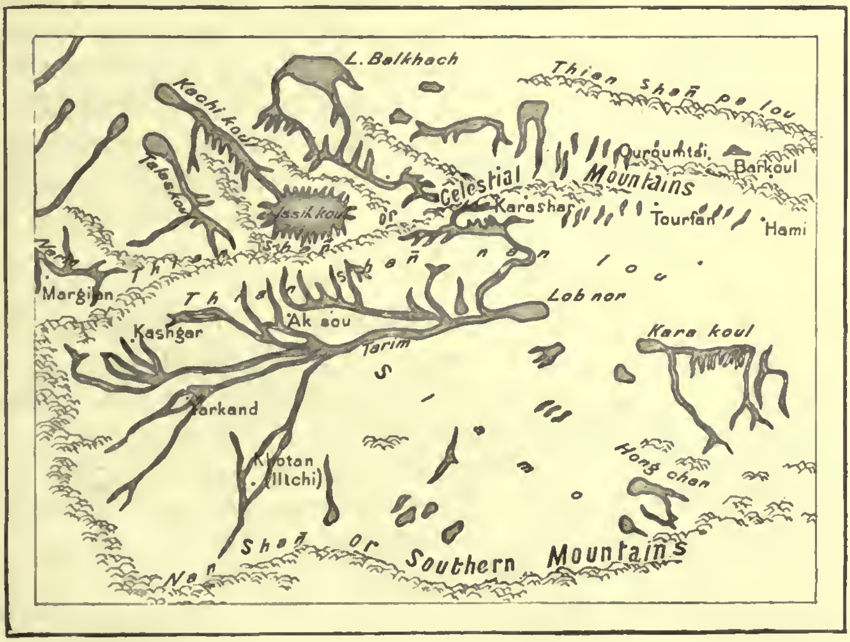
East of the Upper Kara-kash valley the plain crossed by travellers proceeding from the Indus to the Tarim basin is largely covered with saline and other efflorescences. The lake by which it was formerly flooded has disappeared, and even the streams which succeeded it have been swallowed up in the shifting sands. Deep crevasses are here and there filled with sulphate of magnesia as white and fine as the driven snow. The deeper cavities are occupied by muddy salt marshes,

UPPER KARA-KASH VALLEY.

congealed on the surface, and to a height of 17,000 feet hot springs are found encircled by deposits of lime and an outer rim of frozen water. For spaces several square miles in extent the ground is pierced by little funnel-shaped fissures 4 feet deep and 8 in diameter, and nearly all quite regular. After the rains some of these funnels throw up masses of mud and even boiling water. Lower down the banks of the Kara-kash are broken by similar fissures, but with a saline crust round the upper edge. These communicate with the river, which falls during the frosty nights and rises during the day from the melting of the snows and ice. The funnels are thus alternately filled and emptied every twenty-four hours, the salt water of the Kara-kash leaving a saline deposit each time on the surface.

West of the Lower Kara-kash follow several streams which are lost in the sands or in the Yashil-kul swamps, separated by a ridge of dunes from the Kara-

Fig. 22.—The Tian-shan Nan-lu, from a Chinese Map.



kash. These streams rise on the outer spurs of the Kuen-lun, which are covered to a height of 11,000 feet with an argillaceous soil, probably of glacial origin. The main route from India to Chinese Turkestan leads through the Sanju Pass (16,800 feet) over these mountains, thereby avoiding the great bend described by the Kara-kash towards the north-east after emerging on the plains.

The Yarkand and Kashgar.

In the south-west corner of Chinese Turkestan rises the Yarkand-daria, also often called the Zarafshan, or "Auriferous," the longest, and probably the most copious, of all the Tarim affluents. Over one-fourth of the whole population are concen-

trated along the banks of this fertilising stream, whose alluvial deposits are far more precious than its golden sands. Its farthest source is on the Karakorum Pass (17,500 feet), where a ridge a few yards wide separates the Tarim and Indus basins. Flowing first north-west, parallel with all the ranges of this orographic system, it is soon swollen by the numerous feeders sent down from the snows and glaciers of the Dapsang and other peaks, rivalling those of the Himalayas themselves in height and grandeur. Hence the Yarkand is already a large stream when it reaches the plains; but here its volume is rapidly diminished by evaporation and the extensive irrigation works developed along its banks. Nevertheless, during the floods, the main branch is still 400 or 500 feet broad, and nowhere fordable at the city of Yarkand.

None of the streams flowing to the Tarim from the Pamir are of any size. The mountains where they have their source rise immediately west of the plain, leaving little space for the development of large rivers. These mountains, the Tsûng-ling, or "Onion Mountains" of the Chinese, are the advanced projections of the Central Asiatic nucleus, here dominated by the imposing peak of Tagharma. They skirt the eastern edge of the Pamir, which is far more abrupt than the opposite side facing the Oxus basin. Of all the streams flowing from these highlands eastwards the Kashgar-daria alone reaches the Yarkand-daria. Its chief head-stream is one of the two Kizil-su ("Red Waters"), flowing one to the Aral, the other to the Tarim basin. The mountains of the Eastern Pamir are themselves often called Kizil-art, Kizil-tagh, or "Red Mountains."

The Tarim.

The Khotan and Yarkand, swollen by the Kashgar, unite with the Ak-su, which is itself joined by the Taushkan-daria from the Tian-shan, and by the junction of all these streams is formed the Tarim (Tarim-gol), the Oechardes of the Greek geographers. But the term Tarim is little used by the natives, who, according to Prjevalsky, still call the united stream the Yarkand-daria. Rivalling the Danube in length, the Tarim, unlike that river, diminishes in size as it approaches its mouth, although still fed by other tributaries from the north. East of the Kok-su, which flows to Lake Baba, the Khaidu-gol,* descending from the Yulduz steppes, has sufficient volume to reach the Tarim, traversing on the way the large and deep lacustrine basin variously known as the Bogla-nor, Bostan-nor, Bagarash-kul, Karashar-kul, or simply the Denghiz, or "Sea." The Khaïdîn-kua, or Konche-daria, as the outlet of this lake is called, flows through a narrow gorge in the Kuruk-tagh range, which was formerly defended by strong fortifications, and is still guarded by mud forts.

Lob-nor.

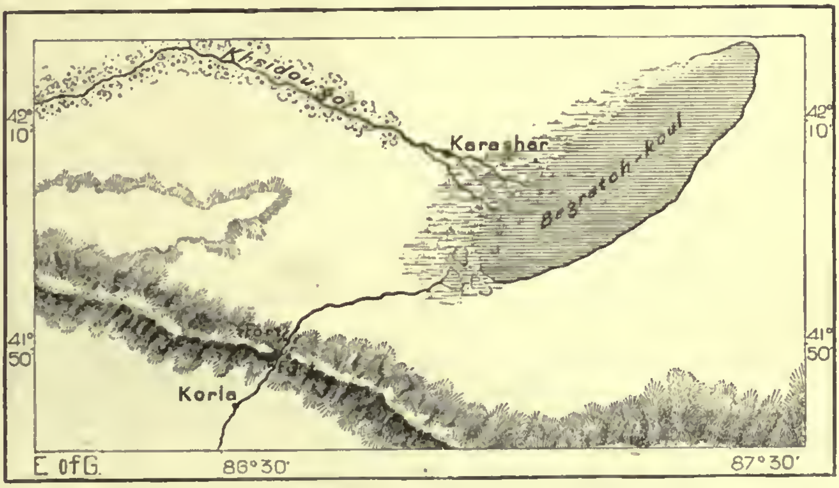
After receiving the Konche-daria, the velocity of the Tarim is gradually diminished as it approaches the deepest portion of the Tian-shan Nan-lu depression. Near

* On most maps *gol* and *göl* are wrongly used synonymously. *Gol* is the Mongolian word for "river," whereas *göl* is a Turki word meaning *lake;* hence equivalent to *kul.*

the village of Abdalli, close to its mouth in Lob-nor, it is little more than 2 feet per second, and the discharge may here be estimated at about 2,700 cubic feet. At Abdalli the Tarim emerges from the reedy swamps of Lake Kara-buran, or "Black Storm," which belongs to the Lob-nor system. But here it is again divided into a number of natural and artificial canals, beyond which it disappears in a forest of reeds even more dense and taller than those of the Kara-buran, rising to a height of over 20 feet above the surface, and partly concealing from view the Chök-kul (Great Lake), or Kara-kurchin, which jointly with the Kara-buran forms the great reservoir commonly known as the Lob-nor. The eastern section covers an area of perhaps 800 square miles; but it is mostly little more than a lagoon or flooded morass, with a mean depth of scarcely more than 7 feet along its southern or more elevated bank. Even in the centre a few fishing villages lie hidden amid the

Fig. 23.—Lake Karashar.

Scale 1 : 1,230,000.



30 Miles.

dense reeds overgrowing a strip of land which here rises above the surface. These villages are thus protected from the fierce gales from the east and north-east, which sweep the lake and open plains, especially in spring, and which cause the water to flood the flat shores of the Kara-buran for a space of 10 or 12 miles; hence its expressive name, the "Black Storm."

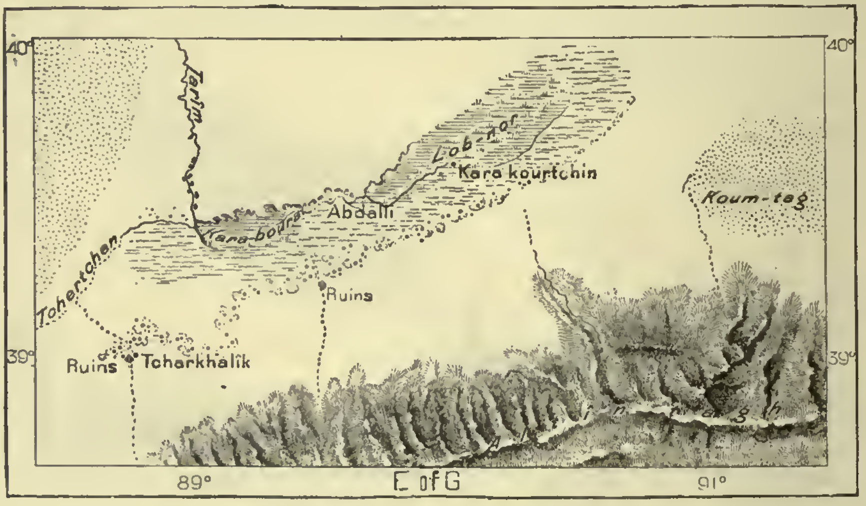
Lake Lob is evidently a mere remnant of the ancient "Mediterranean" mentioned in legend and historic records, and traces of which are clearly detected throughout the whole Tarim depression eastwards to the Mongolian plateaux. The researches of Richthofen enable us accurately to define the contours of what was once the Si-hai, or "Western Sea," and what is now the "Han-hai," or "Dried-up Sea," of the Chinese. This ancient sea, running parallel with the Tian-shan and Kuen-lun, is now known to have covered an area of over 800,000 square miles, with a depth of at least 3,000 feet in its lowest depression; that is, where the

Lob-nor is now found. Even at the dawn of history real inland seas still survived in this region, and the Tian-shan Nan-lu and Tian-shan Pe-lu on either side of the eastern extremity of the Tian-shan range had both of them their vast lacustrine basin, now represented by the small lakes scattered over the plains. The unanimous tradition of the natives, both in Eastern Turkestan and West China, speaks of the gradual exhaustion of these lakes, and the disappearance of the waters may have possibly suggested the idea of an underground channel, popularly supposed to convey the outflow of Lob-nor to the sources of the Hoang-ho, 10,000 feet higher up.

It is very remarkable that the gradual desiccation of Lob-nor has not rendered it completely saline, like most of the other lakes scattered over the old marine basin. Its water is at present fresh and sweet, and according to the local accounts

Fig. 24.—Lob-nor.

According to Prjevalsky. Scale 1 : 2,650,000.



60 Miles.

it gradually diminished in volume towards the middle of the present century, again increasing about the year 1870. Like the Tarim, it abounds in fish of two species, which the natives take by means of artificial canals and reservoirs. During the floods the fish penetrate into these reservoirs, where they are easily captured after the subsidence of the waters.

The Takla-makan Desert.

Although the extent of the desert and waste tracts in Chinese Turkestan has not yet been accurately determined, there can be no doubt that they are vastly in excess of the cultivated and inhabited lands. These are nearly everywhere limited to a narrow strip of a few thousand yards at most along the river banks, beyond which the still unexplored wilderness stretches uninterruptedly beyond the horizon. Here we already enter the Gobi, although it is unknown by this name in Eastern

Turkestan, being, in fact, still separated by the low-lying valley of the Tarim from the true Mongolian deserts. North of Khotan and east of the Khotan-daria the sandy region takes the Turki name of Takla-makan. Here the dunes advancing like the ocean waves are exposed to the full fury of the northern blasts, by which they are raised to heights of from 200 to 400 feet. West of the Khotan-daria, however, they are merely shifting hillocks or mounds, mostly from 10 to 20 feet high, all drifting south-eastwards. But even here some rise to 100 feet and upwards, forming regular crescents, with the horns projecting on either side beyond the central mass. The proximity of the desert is announced in the oasis, and up to the very foot of the Kuen-lun and Pamir ranges by the fine particles of dust whirling in the air, and often clouding the azure sky. The sun is not distinctly visible for some hours after dawn, and when the east winds prevail it remains at times overcast throughout the day. Then the lamps are lit in the houses at noon, as in London during the winter fogs. When driven in dense masses before the storm, the sands are as disastrous to the cultivated lands as they are beneficial when they fall imperceptibly in the form of an impalpable dust. To these sands of the desert the natives thus, not without reason, attribute at once the gradual ruin of their country and the temporary abundance of their crops.

Not all the Turkestan wastes are covered with dunes, which are chiefly concentrated in the south and south-west under the action of the northern winds. Some of the desert tracts are true steppes, like those of the Aral basin, yellow or reddish rolling lands following each other with the uniformity of waves under a steady breeze. In the distance white rocks worn by the sands stand out like ruined buildings, while saline incrustations cover the beds of ancient lakes.

At the foot of the Kuen-lun stretch vast stony wastes, and the old Chinese records speak with horror of all these "rivers of sand" and rocky plains. The wilderness stretching east of Lob-nor is haunted by winged dragons and evil genii. Here the path is traced only by bleached bones; the voice of the sands mocks the wayfarer or fills him with vague fears, now singing, now moaning, or muttering like distant thunder, or uttering shrill, hissing sounds, as if the air were alive with invisible demons. Much of this may be due to the fevered fancy of travellers; but the Eastern Turkestan dunes may also re-echo with that "music of the sands" spoken of by explorers in Sinai, Afghanistan, Peru, and by many naturalists on the seashore. The same voice of the burning sands is mentioned by the traveller Lenz during his recent visit to Timbuktu.

During the prosperous days of the kingdom of Khotan the sandy wastes were far less extensive than at present, although even then the cultivated tracts were hemmed in by the surrounding desert. A great river is mentioned as flowing towards the north-west, to the west of Khotan, but which has now completely disappeared. In the north-east also the inhabitants of a city called Ho-lao-lo-kia, rejecting a message from heaven, were condemned, according to the legend, to perish under a rain of sand. Elsewhere another tradition speaks of 360 cities swallowed up in a single day by the sands of the Takla-makan. Certain shepherds, we are told, know the sites of these cities, but keep the secret in order to enrich

themselves with the gold coins and other precious objects buried in the ruins. Johnson, who refers to this tradition, visited one ruined city close to Khotan, where "brick tea," Greek and Byzantine coins, besides gold ornaments like those still worn by the Hindu women, are frequently picked up. The ruins of another city near Kiria yielded images of Buddha and a clay statuette of the ape Hanuman. Thanks to its almost rainless climate and dry air, the ruins of Chinese Turkestan last for long ages, and walls of adobe are still seen just as they stood when dismantled some eight hundred years ago. The sands also help to preserve the buildings, and when a shifting dune reveals some old edifice, it is generally found in the same state as when originally engulfed.

Flora and Fauna.

In such a climate vegetation is naturally represented by but few species. The plains nowhere display grassy tracts or flowery steppes. Reeds and tall aquatic plants, a few shrubs, such as the *jida* (*Elæagnus*), a sort of wild olive, some tamarinds and poplars at most 30 or 40 feet high, form the chief elements in the spontaneous growth of the Tarim basin. The poplar, which is the salient feature along the watercourses, is of the *Populus diversifolia* species, presenting, as indicated by its botanical name, a great variety in the form and size of its leaves. The very sap of these plants is saline, and in their shade the ground is quite bare, covered either with grey sand or a white efflorescence.

Thanks to their irrigation works, the natives have developed a cultivated flora relatively far richer than the wild growths. The hamlets are shaded with clusters of walnuts, and all the gardens in the Khotan and Yarkand districts have their mulberry plots. The pear, apple, peach, apricot, olive, and trailing vine intertwine their branches in the orchards, and all yield excellent fruits, while abundant crops of maize, millet, barley, wheat, rice, cotton, hemp, and melons are raised round about the villages, which are often buried in a dense vegetation of almost tropical luxuriance.

On the banks of the Tarim and its affluents the species of wild fauna are even less numerous than those of the wild flora. Besides the wild boar and hare quadrupeds are rare, although the tiger, panther, lynx, wolf, fox, and otter are met in the thickets along the river banks, while the maral deer and antelope keep to the open plains. None of the mammals and two species only of birds are peculiar to this region. Prjevalsky enumerates forty-eight species of avifauna altogether, but in spring and autumn Lake Lob is visited by millions of birds of passage, which here find a convenient resting-place on their weary flights between Southern Asia and Siberia. They arrive in a thoroughly exhausted state, and it is noteworthy that they come, not from the south, but from the south-west, thus avoiding the bleak plateaux of Tibet.

It was in the neighbourhood of Lake Lob that Prjevalsky saw a wild camel, an animal whose existence had been doubted by most naturalists, although constantly mentioned in the Chinese records and spoken of by the natives of Turkestan

and Mongolia to all recent travellers. It is at present met chiefly east of Lob-nor, in the sandy Kumtag deserts, and less frequently about the Lower Tarim and Cherchen-daria, and on the Altin-tagh uplands, in company with the yak and wild ass. Very numerous twenty years ago, they have become somewhat rare since the Lob hunters have begun to pursue them into the desert. They are extremely wary, and scent the enemy several miles off under the wind. They are distinguished by some anatomical features from the domestic animal, and the two varieties differ also in size and the colour of their coats. All the wild camels are small compared with the giants of the caravans, and it is on the whole more probable that they represent the original stock than that they descend from individuals of the tame species which have escaped to the desert.

Most of the traffic is carried on by means of horses of large size imported from Ferghana, while the small, hardy, and vigorous breed used as mounts come chiefly from the Southern Tian-shan valleys, and especially the Ak-su district. Owing to the great heat the yak could scarcely live on the plains, and this animal is imported only for the shambles of the Turkestan cities. The sheep and goats tended by the Kirghiz nomads on the slopes of the Tian-shan and Pamir are of the same species as those of Tibet, and are equally noted for their delicate fleece. According to Shaw the best wool in the world comes not from Tibet, but from Turfan.

Inhabitants—The Kashgarians.

The peoples of the Tarim basin are evidently a very mixed race. Old geographical names and many facts mentioned in the Chinese records show that at least a portion of the inhabitants are of Aryan stock. The legendary heroes of the country are the same Iranian heroes, "Rustan and Afrasiab," whose exploits are associated with the gorges, precipices, and other natural wonders of the land. They are the Charlemagnes, the Rolands, and Arthurs of Central Asia, and even in the legends of Chinese Turkestan their names recur more frequently than that of Alexander himself, the "Hazret Sikander," supposed to have conquered China in order to propagate Islam in that region. At present the only tribes of undoubted Iranian stock are the Galchas, akin to those of the Upper Oxus valleys. Like them, they are a fine race, of symmetrical build, frank and upright in their dealings, still worshippers of fire and the sun. Although scattered in small groups amongst the Kirghiz of Turki speech, many still preserve the old language, and Persian is still current in the Upper Sarikol valley, over 700 miles from the frontier of Irania. But the little Aryan community of this upland region recently threatened to disappear, Yakub Khan having forcibly removed them to the Kashgar district. Even amongst the Turki people of the plains many traits recall the regular Aryan type. Europeans who have visited Yarkand were struck by the resemblance of many natives to the English in their regular features and florid complexion. They had well-furnished beards, although men of pure Turki stock are mostly beardless.

But such is the mixture of races in this region that Persians, Tibetans, Arabs,

Kirghiz, Kalmuks, every variety of Mongols and Tatars as well as Hindus and Chinese, are represented in their crossings with the Sartes, or Taranchi, of Eastern Turkestan. Even in the wholesale massacres, such as those of 1863, 1877, and 1878, when the inhabitants of whole cities were exterminated, the hatred of oppressor and oppressed corresponds in appearance only with that of hostile races. However the Kashgarians may have detested the very name of Chinese some years ago, many people were none the less met in the streets bearing an unmistakable resemblance to the natives of the "Middle Kingdom." The only real contrasts here observed are such as are caused, not by race, but by social habits, pursuits, or climate. The two really distinct elements are the agricultural classes of the lowlands, whatever may be their origin, and the Kirghiz or Kalmuk nomads of the upland pastures.

In the cultivated tracts the people designate each other not by ethnical names, but by their native places, calling themselves Khokandi, Yarkandi, Kashgari,

Fig. 25.—Races of Chinese Turkestan.

Scale 1 : 15,000,000.

6,500 to 13,000 Feet. 13,000 and upwards.

300 Miles.

Turfani, as the case may be. They have, nevertheless, a sort of collective patriotic sentiment based on a community of political conditions and social habits.

Proceeding from the foot of the Karakorum north-eastwards, one observes a gradual transition in the aspect of the people, Aryan features insensibly yielding to the Mongol type. But all this intermingling has by no means resulted in a fine race. In the Yarkand district every third person you meet suffers from goître, and this affection is quite as common in the plains as on the uplands. Ophthalmia is also very prevalent, thanks to the dazzling glare of the sun, the dust, and fierce sand-storms.

The current speech differs little from the Turki dialect of Tashkent, the chief differences arising from the use of Chinese words and of some Kirghiz expressions,

which seem to have found their way from Orenburg without leaving any trace of their passage in the Sir and Oxus basins. The East Turkestan dialect, which is spoken with great uniformity throughout the Tarim basin, possesses no literary importance. It boasts of neither poets nor prose writers, and even books are extremely rare in the country.

The strangers here settled come mostly from Ferghana, and are collectively known as Andijani, from the name of the old capital of Kokhand. Hindus are met only in the bazaars of the chief towns, but Kashmiri people are numerous, and some Tibetan settlers from Baltistan raise tobacco and melons in the Yarkand district. The Jews were till recently almost unknown in the country, Yakub, like the Emir of Bokhara, having excluded them from his kingdom. But since the return of the Chinese numerous Jewish families have crossed the eastern slope of the Pamir from Russian Turkestan. Under Yakub the law for strangers was, "Islam or death," the Kalmuks alone being allowed to retain their Buddhist fetishes. The Kashgarians entertain a great aversion for Christians of the Catholic and Greek rites, who place images or statues in their churches. But they regard the iconoclastic Protestants as Mohammedans of an inferior order, neglecting the observances, but none the less forming part of the great family of Islam. But with all their zeal the people are extremely immoral, and thousands have been brutalised by the use of opium, or of *nasha*, a mixture of an extract of hemp and tobacco, which is highly intoxicating. Apart, however, from the tricks of trade, robbery and theft are rare. When a pack animal strays from the caravan the load is left on the spot while they go in search of it. In Yakub's time the method of dealing with thieves was at once simple and summary: for the first offence a warning, for the second the bastinado, for the third loss of both hands, for the fourth decapitation.

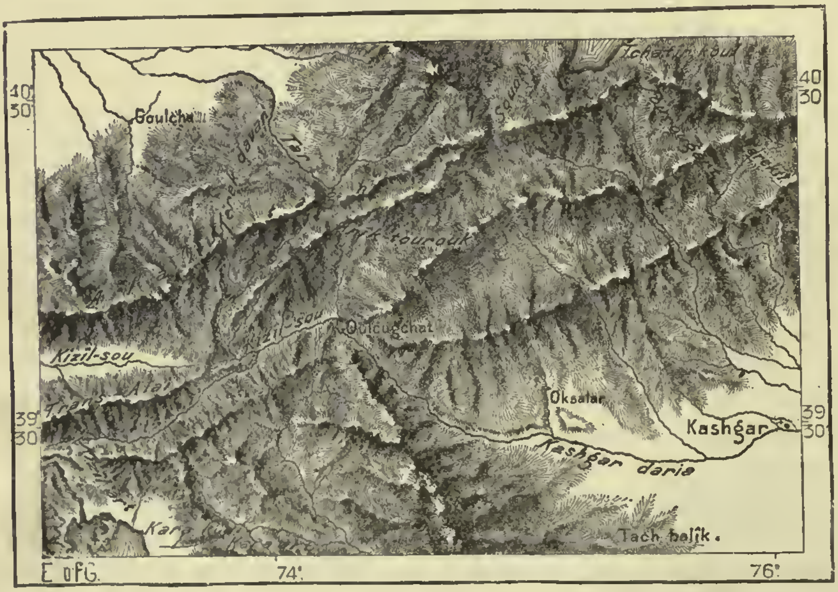
Chinese Turkestan is on the whole a poor country, although Shaw found it superior to India as regards the well-being of the people. Yet the mud houses are not even whitewashed, and the dust penetrates everywhere through the fissures. Even in the large towns the remains of edifices are rarely seen embellished with enamelled porcelain and arabesques, like those of Samarkand and Bokhara. Industry seems to have declined, judging at least from the descriptions of the Chinese records and the valuable treasures often brought to light from the débris of old buildings buried under the sands. The chief local industries are cotton, silk, and woollen fabrics, carpets, boots, and saddlery. Notwithstanding the rich mineral deposits, most of the copper and iron wares are imported, as are also all the woven goods of finer quality. At present most of these articles come from Russia, the imports from India being of little value.

Routes and Passes.

Between Lake Karashar and the sources of the Kashgar-daria, Kuropatkin enumerates thirteen passes used by the caravans crossing the Tian-shan and its western prolongation, the Alaï. All these passes are practicable in summer for

saddle-horses and pack animals, and at least one, that leading from Kashgar over the Turug-art (11,750 feet) and the Terekti (12,800), might easily be converted into a carriage road. On the other hand, one alone is utilised throughout the whole year. This is the famous Terek-davan, or "Poplar Pass" (10,450 feet), used throughout the historic period by most of the Central Asiatic conquerors. When the winter snows are unusually heavy, the Sartlar, a neighbouring Kara-kirghiz tribe, are employed to transport the goods across the pass. The future railway from Russian Turkestan to the Tarim basin will probably follow this route, which offers the most direct line from the Volga to the Hoang-ho basin. But for the present there is no question of railways in a region where even the

Fig 26.—Routes from Kashgar to Ferghana.
Scale 1 : 2,500,000.



60 Miles.

main highway round the base of the mountains from Khotan to Hami assumes the aspect of a mere desert track.

Topography—Administrative Divisions.

The chain of oases encircling the Tarim depression begins at the foot of the Central Kuen-lun with the city of *Cherchen* (Charchan, Charchand, Chachan), which has probably been visited by no European since the days of Marco Polo and Benedict de Goës, and whose position can only be approximately determined. Too inaccessible to be subjugated either by the Chinese or the Khotani, it lies about 6,000 feet above sea-level on a torrent flowing to Lake Lob in a corn-growing district. It is a small place, of some five hundred houses, according to Johnson, reduced by Prjevalsky to thirty.

West of Cherchen follow *Naya*, *Kiria*, *Chira*, and numerous villages along the foot of the Kuen-lun, but no important town till we come to *Khotan* (Ilchi), formerly a royal residence, and still capital of a province. Standing on a considerable stream in a highly productive district, it is often mentioned by Arab and Persian writers in connection with the famous perfume procured from the musk deer of the neighbouring hills. It was no less renowned in China under the name of Yu-thian, owing to the *yu*, or jade, collected in its streams, and to which were attri-

Fig. 27.—Khotan and the Southern Plateaux.
According to Montgomerie. Scale 1 : 2,450,000.

60 Miles.

buted special magical virtues. The moderate brightness of the yu is humanity, its perfect hardness wisdom or prudence, its unyielding angles justice. Suspended, it represents urbanity, while its harmonious sound stands for joy, and the substance itself for the rainbow. Jade is also found in Upper Burmah, but is nowhere so abundant as in the Kuen-lun and the streams flowing thence to the Tarim basin. The white species, which is the most esteemed, occurs only in the Khotan district, whence even in remote times it found its way to the farthest limits of the continent.

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During the prosperous period of the kingdom of Khotan the jade harvest began after every rise of the waters with a religious ceremony conducted by the King, and the finest specimens were reserved for his treasury.

At the beginning of the Christian era Khotan was a large city, and capital of a powerful empire. The Chinese records speak of a garrison of 30,000 troops, and a population of 85,000, all Buddhists, besides numerous lamassaries in the district, and a large monastery of 3,000 monks, 50 li farther south. During the processions from the city to the surrounding temples the King walked barefooted before the image of Buddha, and presented himself to the high priest bareheaded and laden with perfumes and flowers.

The Chinese conquest and subsequent Mongolian invasions ruined the trade of Khotan, although it was saved from the fate of so many other cities engulfed in the sands. In 1863 it was the first place to revolt from the Chinese, and notwithstanding the massacres which then took place, Johnson describes it two years afterwards as a large manufacturing town. Here are produced copper-ware, silks, felts, silk and woollen carpets, coarse cotton goods, and paper made of the mulberry fibre. The district yields cotton and silk, while the neighbouring mountains abound in gold, iron, antimony, coal, salt, sulphur, and saltpetre. But the gold mines alone are worked, yielding a yearly average of about 2,100 lbs., valued at £110,000.

In the south-east corner of the Tarim basin lies *Sanju*, on a torrent which is lost in the desert. Farther west and north-east follow *Kilian*, *Pialma*, *Guma*, *Kargalik*, and to the north-west *Posgam*, all crowded together in the richest part of the whole country. Here also is the famous city of *Yarkand*, the largest in Eastern Turkestan, with a population estimated at from 60,000 to 100,000, including some 8,000 foreigners of every nationality. The bazaar lies in the centre of an intricate labyrinth of streets and canals encircled by a broad wall, which is flanked by towers and defended on the west by the fortress of Yangi-shahr, or "New Town," erected by the Chinese to overawe the unruly Yarkandi. Nearly all the towns of Eastern Turkestan have their Yangi-shahr, consisting mainly of administrative buildings and barracks.

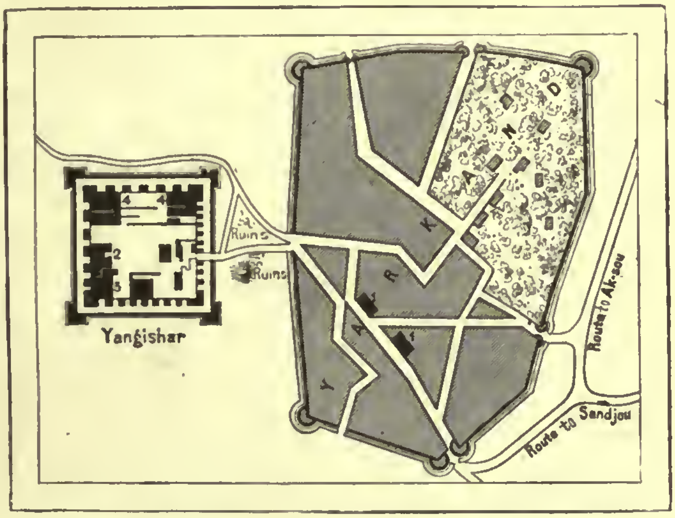
The route from Yarkand to the second capital, Kashgar, approaches the foot of the mountains in order to connect the city of *Yangi-hissar*, or "Newcastle," near which are some metal works visited by Shaw. *Kashgar*, which lies 5 miles west of its "Yangi-shahr," is surrounded by a thick mud wall, beyond which are the remains of a city said to have been destroyed by Timur. Although lying in a less productive district than Yarkand, Kashgar occupies a better position for trading purposes, for it commands the route leading over the Terek-davan to Ferghana, besides several others here converging from the Tian-shan. It is thus at once a commercial entrepôt and strategical point of vital importance, a warlike city in legendary history, the birthplace of the hero Rustan. In the surrounding villages coarse cloths are woven and exported to the yearly value of over £100,000. North of Artush, one of these villages, the defiles leading to Russian Turkestan were fortified in Yakub's time by the stronghold of Tash-kurgan.

STREET SCENE, YARKAND.

Another important fortress is *Maralbashi*, lying east of Kashgar, near the junction of the Kashgar-daria and Yarkand-daria, and at the junction of the routes connecting the chief cities in the Tarim basin. North-west of it the small town of *Ush-turfan*, with a garrison of 2,000 men, guards the route leading over the Badal Pass (15,000 feet) to the Issik-kul valley. But the most important place at the southern base of the Tian-shan is *Ak-su* (" White Water "), a fortified town at the foot of a bluff, formerly overlooking the Ak-su River, which now flows nearly 10 miles farther west. Beyond Ak-su, *Bai*, *Kucha*, *Korla*, *Karashar*, and all the other towns of Chinese Turkestan lie at some distance from the Tarim, which here flows through the heart of the desert over 60 miles south of the

Fig. 28.—Yarkand and Yangi-shahr.

Scale 1 : 55,000.



1. College. 2. Old Residence of the Khan. 3. Magazines. 4. Old Citadel.

3,300 Yards.

advanced spurs of the Tian-shan. They are all small places, with little trade or industry.

Nor are there any towns on the Lower Tarim, or near Lake Lob, although the ruins of ancient cities are here both numerous and extensive. The remains of a place called Kok-nor lie concealed amid the reeds of a river three days' journey south-west of Lake Lob, and contain a temple with an image, apparently, of Buddha, still visited by the natives. They report that the statue and temple walls are adorned with precious stones and ingots of gold and silver, which no one dares to touch for fear of being struck dead by an invisible hand. The present "Tarimtzi," or inhabitants of the lake, reduced to a few hundred families, have nothing but wretched reed hovels, with a few fishing boats and nets. The dead are laid on a skiff, with another reversed above it to form a coffin, and with them is placed half a net to fish with in the other world, the second half being kept by the relatives in memory of the departed.

A report had long been current that certain Russian sectaries had taken refuge on the banks of the Tarim. But Prjevalsky has shown that the report was groundless, and that the Tarimtzi, with their "Aryan" features, differ in no respect from the other Sartes of the Tarim basin. It is none the less certain that some Russian Raskolniks found their way to this dreary region in search of the marvellous "White Water," which cleanses of their sins all who bathe in it, besides securing for them all earthly happiness. A few young men first arrived to erect huts and prepare the fields for the colony. Next year came the rest of the immigrants with their families; but despairing of finding the sought-for Eden on the shores of the Lob-nor, they soon retraced their steps northwards to Urumtsi, and since then nothing further has been heard of these mystic pilgrims.

Chinese Turkestan comprises ten large divisions, which, proceeding from the south-west, are: Khotan, Yarkand, Yangi-hissar, Kashgar, Ush-turfan, Ak-su, Baï, Kucha, Korla, Karashar. Three military commandants reside at Karashar, Khotan, and Yarkand, the last named being also the seat of the general administration. Amongst all the cities, seven are considered as enjoying a special dignity, apart altogether from their size and administrative rank. Khotan, Yarkand, Yangi-hisṣar, Kashgar, Ush-turfan, Kucha, and Karashar are the members of this Jiti-shahr, or "heptapolis."

CHAPTER IV.

MONGOLIA.

I.—THE KUKU-NOR.

THE mountainous region stretching for some 120,000 square miles to the north-east of, and often included in, Tibet, is really quite distinct from that country. It depends politically rather on the Emperor of China than on the Dalai-lama, while its commercial relations are far more important with the Chinese province of Kansu than with the valley of the Tsangbo. A triple mountain barrier separates the Kuku-nor and Chaidam basins from the inhabited regions of Tibet, while the natural slope of the land is towards the north-west; that is, towards the Gobi and the Mongolian domain. Nevertheless, this land of lofty plateaux, of closed basins and difficult mountain ranges, can hardly be regarded as belonging to the same natural division as the Gobi wastes, or the cultivated plains of Kansu. Hence it must be studied apart, as far as the scanty geographical materials may enable us to do so.

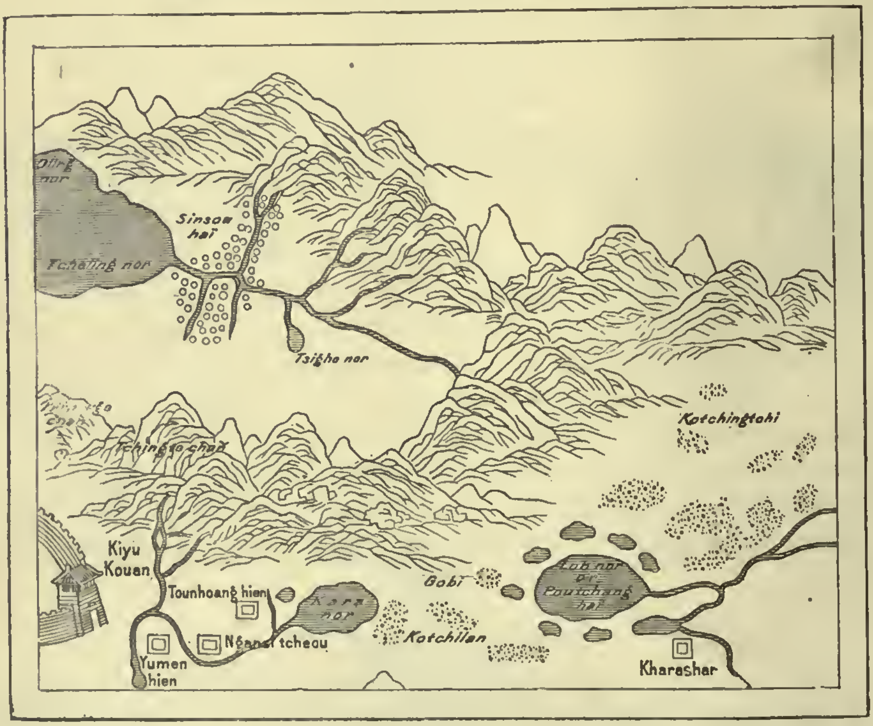
RELIEF OF THE LAND.

East of Lake Lob the Altin-tagh and Chamen-tagh ranges are interrupted by a broad gap, through which the Chaidam depression merges in the plains of the Lower Tarim and Lob basin. Still farther east rise other ranges also belonging to the Kuen-lun system, and forming the advanced scarps of the Tibetan plateaux. These are the parallel chains between which the great rivers of East Tibet have their source. Such are the Muriu-ussu, which farther down becomes the Kinsha-kiang and Yang-tze-kiang; the Lantzan-kiang, or Upper Mekhong; and the mysterious Nap-chu, forming the boundary of Tibet proper, and supposed to be identical with the Lu-tze-kiang, or Upper Salwen. The ranges themselves, with the intervening valleys, run beyond the plateau north-west and south-east, parallel with the Chaidam valley, which is continued on the one hand by that of the Lower Tarim, on the other by the lacustrine district where the Hoang-ho takes its rise. It is thus easy to understand why the old Chinese geographers unanimously assert

that the sources of the Yellow River are the springs from the underground waters flowing from Lake Lob. The early travellers were unable to determine the general inclination of the slopes between the Lob and the Hoang-ho. Yet the Chinese maps, projected in a reverse sense from ours, figure a rampart of mountains between the "Stars," or lakelets, forming the source of the Hoang-ho, and the plains whose central depression is occupied by Lake Lob.

Still the transverse depression of the Tarim and Hoang-ho is consistent with the presence of northern mountain masses and ranges, which are connected with the Tibetan plateau by an extremely irregular region, across which the Yellow River forces its way through a series of formidable gorges. This highland system,

Fig. 29.—Sources of the Hoang-ho, from a Chinese Map.



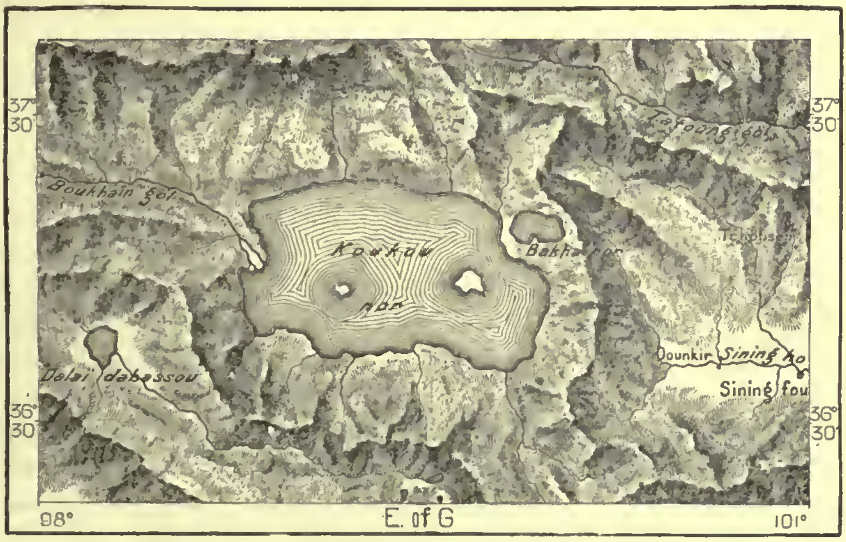
which may be called that of the Kuku-nor from its central lake, is also intersected by various affluents of the Hoang-ho. In the north the Nan-shan range (Siwen-shan, or Kilien-shan), running nearly west and east, forms the outer limit of the Kuku-nor region above the plains of the Mongolian Kansu, thus apparently prolonging the Altin-tagh east of the Chaidam gap. Towards the sources of the Az-sind some of its crests rise above the snow-line, here fixed at about 14,000 feet. South of the Nan-shan, which is dominated by the Konkir, one of the "amne," or sacred mountains, of the Tanguts, there rises another range, the Chetri-shan, separating the valley of the Tatung-gol from the southern basin of the Kuku-nor. Beyond this lake succeed other mountains, the Southern Kuku-nor system of

Prjevalsky, which break into numerous ridges, all abounding in minerals. Here much gold was formerly collected ; but since the Dungan insurrection the washings have been abandoned.

The opposite slopes of all these ranges present the same contrasts as do those of the Tian-shan in Kulja, and those of the Altaï in Siberia. Thus the Nan-shan is well wooded on its northern flank, whereas timber is very scarce on the opposite side. Still the flora of this region is extremely varied compared with that of the northern steppes and southern plateaux. Forests of conifers, willows, and red birch, besides other trees elsewhere unknown, rise to an altitude of 10,000 feet. Peculiar species of the rhododendron and honeysuckle are found in the undergrowth and on the alpine prairies. The Kuku-nor highlands are also the special

Fig. 30.—Kuku-nor.

According to Prjevalsky. Scale 1 : 2,780,000.



60 Miles.

home of the medicinal rhubarb, for which the Chinese merchants of Sining pay high prices. The fauna of these regions is also surprisingly rich, and Prjevalsky here discovered no less than forty-three new species.

Lake Kuku.

The Kuku-nor, which gives its name to the province, is the Tso-gumbum of the Tibetans, or the Tsing-hai, or "Blue Lake," of the Chinese. It is so named from its beautiful azure colour, contrasting with the delicate white of the snows mirrored in its waters, which Prjevalsky describes as "soft as silk." It has the form of an elongated ellipse, with a circuit of from 220 to 240 miles, and an area of from 2,000 to 2,500 square miles. It was formerly far more extensive, as

shown by the water-marks on the cliffs at a great distance from its present shores. Its numerous feeders from the west, of which the Bukhain-gol is the largest, do not suffice to compensate for the evaporation, and, as there is no outlet, its waters have become saline. Towards the east is an island 6 miles in circumference, which, according to the legend, closes up the abyss whence sprang the waters of the lake. It was dropped by a gigantic bird from the skies on the spot, in order to stop the flow, which was threatening to submerge the world. A convent with about a dozen lamas stands on this solitary island, completely cut off from the mainland during the summer, when no craft dares to venture on the stormy lake. But during the four winter months the monks cross the ice and renew their stock of flour and butter. The lake, which is said to abound in many species of fish, stands 10,600 feet above the sea, and is fringed by dense thickets of shrubs.

The Chaidam Basin.

Several other smaller lakes are scattered over the plateau west of the Upper Hoang-ho, but the largest of all the inland seas in this region has long disappeared. The valley of the Chaidam (Tsaidam) was formerly the bed of this vast reservoir, which filled the triangular space bounded on the north by the Nan-shan, east by the Kuku-nor highlands, south by the Burkhan-Buddha range. It is traversed south-east and north-west by the large river Bayan-gol, or Chaidam, which is perhaps 250 to 300 miles long, and 480 yards wide at the point crossed by Prjevalsky. But as it approaches the desert its volume gradually diminishes, until it disappears at last in the Dabsun-nor swamps, near the gap through which the Chaidam Lake was formerly united with the Lob-nor. Throughout its eastern section the Chaidam plain is covered with saline marshes, while in the north-west nothing is seen except argillaceous or stony tracts. The vegetation is limited to the reeds of the swamps, a scanty herbage and thickets of the *Nitraria Scholeri* growing to a height of 7 feet, with berries at once sweet and bitter, eagerly devoured both by man and beast. They are gathered in the autumn, and mixed by the natives with their barley-meal.

The fauna of Chaidam is as poor as its flora, which is probably due to the swarms of mosquitoes infesting the marshy tracts, and driving the flocks and wild beasts to the surrounding uplands. The animals most frequently met on the plain are a species of antelope, the wolf, fox, hare, and, according to the Mongolians, the wild camel in the western solitudes. Although visited only by the hunter and nomad pastor, the country is not unsuitable for a settled population, being well watered by the Bayan-gol, and enjoying a comparatively mild climate, especially towards its western extremity, where it falls to little over 3,000 feet above sea-level. The ruins of an ancient city at the confluence of the Bayan-gol with another stream in the centre of the plain are still silent witnesses of the great changes that have taken place in a region once perhaps thickly peopled, now occupied only by a few nomad tents.

The upland steppe of Oduntala, north of which runs the water-parting between

the Bayan-gol and Hoang-ho, is a holy land for the Mongols and Chinese. Here are the Lakes Jaring and Oring, which drain to the Yellow River. But no European has at least recently visited this region of Sinsu-hai, or the "Starry Sea," although its pastures are frequented in summer by the Mongols, who come to worship their god near the sacred springs. Seven spotless animals—a yak, a horse, and five sheep—are consecrated by the priests, who tie a red ribbon round their necks and drive them to the mountains, charged with the sins of the tribe.

West of the Oduntala steppe begins the Burkhan-Buddha ("Lord Buddha") range, which here forms the angular escarpment of the Tibetan plateau. It is an arid chain of nearly uniform height and regular slopes, consisting mainly of clay, conglomerates, and porphyry. It is separated rather by a narrow gully than a valley from the Shuga, another barren range of grey, yellow, and red rocks, some of whose peaks rise above the snow-line. Farther south stretches the bleak plateau, strewn with hillocks and low ridges, torn here and there by crevasses, covered in one place with stones, in another with sands or a white saline efflorescence. For travellers this elevated rolling plain, from 14,500 to 15,000 feet high, is a region of horror and of death, from which they gladly escape over the Bayan-khara border range down to the pasture lands fringing the Muru-ussu, or Upper Yang-tze-kiang.

Inhabitants—The Tangutans.

The Kuku-nor country is officially bounded by the Shuga range, but it is often extended to the Bayan-khara, or even to the valley of the Blue River, and beyond it to the Khara-ussu. But in such a vast and mostly uninhabited region the frontier-line must necessarily be somewhat fictitious. Its population may be estimated at about 150,000, and in the region west of the lake there can scarcely be more than 20,000 inhabitants altogether. Towards Donkir, near the Chinese frontier, the population is tolerably dense, and here the districts spared by the Dungan rebels are admirably cultivated. Chinese settlers have already penetrated into these valleys, where the aboriginal element consists of Tanguts and of Dalds, an agricultural tribe unlike the Chinese in appearance, although assimilated to them in religion, manners, and customs. Their dialect is a mixture of Chinese, Mongol, and unknown words.

The most sedentary tribes are Mongolians, degenerate representatives of their race. Oppressed by the Tanguts, and lacking the spirit to resist, they obey in silence, scarcely remembering that their forefathers were once masters of the land. The dominant Tanguts themselves are mostly a proud and daring race, fully conscious of their strength. Of Tibetan stock and speech, they differ greatly from the Mongolians in appearance and habits. With large black eyes, oval face, moderately high cheek bones, full black beard, straight or aquiline nose, they present a startling likeness to the South Russian gipsies. The Mongol is peaceful, the Tangut combative; the Mongol loves the arid waste, the boundless space, while the Tangut prefers the valleys and moist pastures of the uplands. The former is

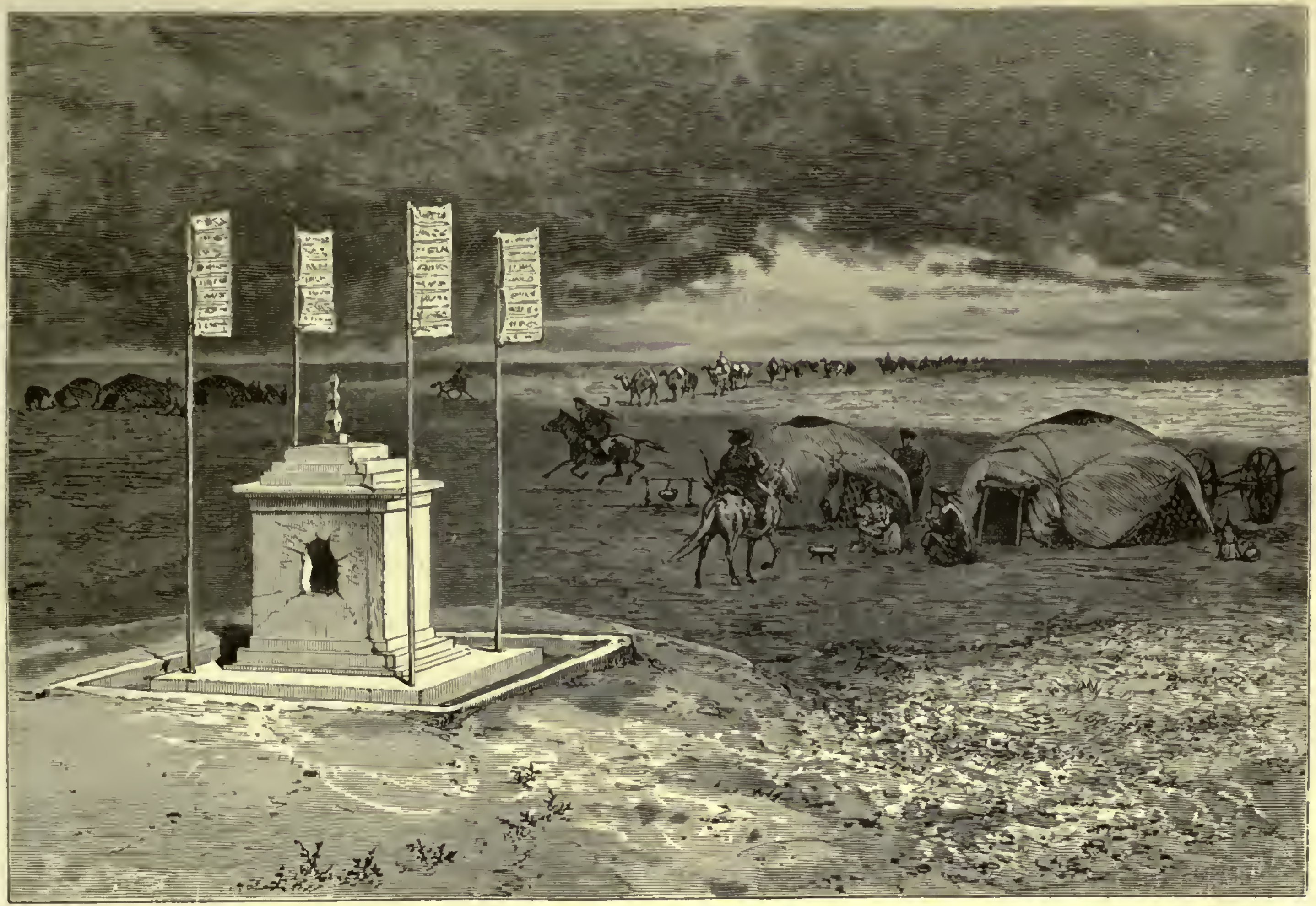
hospitable and friendly to strangers, the latter drives them from his tent, or makes them pay dearly for their entertainment. For the Tangut is greedy and speculative, fond of pillage and plunder, but at the same time religious, never forgetting to obtain absolution for the deeds of violence and bloodshed committed in his marauding expeditions against the caravans and Mongol encampments. On the sacred shores of the Blue Lake they purchase or seize the captured fish and restore it to its native element, their good actions thus soon outnumbering their misdeeds.

The Tangutans are not polyandrous like the Southern Tibetans, but polygamy is permitted, and the wealthy proprietors readily exchange their yaks and sheep for new wives. The women, however, are not treated as slaves, moving about freely and spending much of their time at the toilet. The tents are usually made of black yak hair, with an opening at the top for the smoke to escape. The family sleeps in a circle round the hearth on heaps of grass and branches, or even on the bare ground, amid the kitchen dirt and refuse.

In the Kuku-nor country there is a living incarnation of Buddha, although his glory is much obscured by that of his Tibetan rival. Here a great many lamas live under the tent, while those residing in community often wander about from tribe to tribe. At their death they receive funeral honours, whereas the simple faithful are thrown to the beasts and birds of prey. The only occupation of the natives is stock-breeding, and some rich proprietors possess hundreds of yaks and thousands of sheep. Everything is paid for by so many head of cattle, and thanks to the trade thus carried on in flour, tobacco, woven goods, tea, and rhubarb, the Chinese Government has gradually succeeded in re-establishing its supremacy over the natives. By means of this local traffic, and the caravans constantly passing through their country between China, Mongolia, and Lassa, the Tanguts are able to maintain frequent relations both with the Dalai-lama and the Emperor of China, their spiritual and temporal sovereigns. The monastery of Cheibsen, about 45 miles north of Sining-fu, on an affluent of the Yellow River, may be regarded as the capital of the country. According to Prjevalsky the province is divided into twenty-nine *khoshun*, or "banners," five in Chaidam, nineteen in the Kuku-nor district and its northern valleys, five south of the Hoang-ho. Sining is the residence of the Chinese officials, through whom the Tangutans communicate with the Imperial Government.

II.—MONGOLIAN KANSU.

The desert zone stretching from the Takla-makan sands north-eastwards to the elevated plateaux bounded by the Great Khingan range, although often represented as a region of great uniformity, is really characterized by considerable diversity in its relief, soil, and climate. Thus the tract, some 300 miles broad, lying between Hami and the Nan-shan Mountains, is not, strictly speaking, a desert at all. It merges no doubt in one direction with the wastes of the Lower Tarim, in another with the dreaded plateaux of the Eastern Gobi, while some of its plains form smaller inter-



MONGOLIAN DESERT—TOMB OF A LAMA AND ENCAMPMENT.

mediate solitudes, waterless and destitute of vegetation. But elsewhere the streams from the Nan-shan and neighbouring highlands are copious enough to flow between verdant banks northwards to the foot of the advanced spurs of the Tian-shan. The "deserts" traversed by these rivers are not dismal solitudes like the Takla-makan of the Tarim basin, or the "Black Sands" and "Red Sands" of the Aralo-Caspian depression. Water is found almost everywhere near the surface, and springs bubble up in the hollows, often encircled by extensive oases. Everywhere the ground is hard and easily traversed by horses and carts. Wayside inns, villages, and even towns with bazaars and industries have sprung up here and there along the banks of the running waters in the midst of cultivated lands and plantations.

Climate and Rainfall.

The cause of this break in the great central desert must be sought in the contours and relief of the continent itself. South of this comparatively fertile belt the coast-line is deeply indented by the Bay of Bengal, forming a semicircular curve with a radius of not less than 900 miles. Thanks to this vast marine basin penetrating far inland between the two peninsulas of India and Indo-China, the space separating Kansu from the ocean is reduced by one-half. The vapour-charged clouds are thus borne inland beyond the Kuku-nor district. The atmospheric currents crossing East Tibet from the Brahmaputra delta to the Mongolian wastes find no obstacles comparable to those presented farther west by the vast plateau of Central Tibet, with its plains from 15,000 to 16,000 feet above sea-level, and its mighty escarpments towering to an altitude of 23,000 or 24,000 feet. The ranges in the province of Kham are not only less elevated than those of West Tibet, but also present many breaks of continuity, while often running in parallel lines with the meridian, thus enabling the southern winds to sweep up the valleys as far as the Kuku-nor highlands.

The south-west monsoons, which bring such a prodigious quantity of water to the Brahmaputra basin, are far from being exhausted after crossing the Bayan-khara range. From April to the end of autumn they bring both snow and rain, and the atmosphere is really clear and dry only during the winter season. Prjevalsky found snow falling daily during the whole month of April. Hence it is not surprising that sufficient moisture is still discharged beyond the Nan-shan range to give rise to true rivers, which flow thence far into the plains. Still none of them are able to reach streams with a seaward outlet, so that all ultimately disappear in saline lakes and marshes overgrown with reeds. The river Ngansi, flowing westwards in the direction of Lob-nor, runs dry in the depression of Khara-nor, or the "Black Lake." The Az-sind (Etzina, or Edsineï) receives the waters of the "Snowy Mountains," after which it is joined north of the Great Wall by the Tolaï from Suchew. Farther on it gradually diminishes in volume until it disappears at last in the Sogok-nor and the Sobo-nor on the verge of the desert.

Routes—Extent—Population.

Thanks to the fertile tract thus cutting the Gobi into two great sections, the Chinese have been able easily to maintain their communications from the Nan-shan to the Tian-shan with the western provinces of the empire. The natural route always followed by the caravans and invading hosts starts from Lantchew-fu, at the great western bend of the Hoang-ho, and, after crossing the mountains skirting the Kuku-nor basin, descends through the Kiayu defile and the Great Wall into the northern plains, and so on north-westwards to the Hami oasis. Here the historic highway branches off on either side of the Eastern Tian-shan, one

Fig. 31.—West End of the Great Wall.

Scale 1 : 5,000,000.

120 Miles.

track penetrating into the Tarim basin, the other passing through Zungaria into the Aralo-Caspian basin; that is, into the Russian world and Europe.

It is thus evident how important to China must be this relatively fertile region conquered two thousand years ago, which divides the desert zone into two parts, and which is traversed by the great transverse route from the Hoang-ho to the Tian-shan. The whole country, although lying beyond the Great Wall and separated by lofty ranges from the Hoang-ho basin, has accordingly been attached to the province of Kansu. Even in the last century the districts of Hami and Pijan, on the southern slope of the Tian-shan, were included in this province as integral parts of the inner empire. North-west of a parting ridge crossed by the Usu-ling Pass (about 10,000 feet) a belt of inhabited lands, in some places scarcely 30 miles

broad, connects Chinese Kansu with this North-western Kansu, which, from the nomads frequenting it, may be called Mongolian Kansu. Its area may be estimated at 160,000 square miles, with a population of probably less than one million, centred chiefly in the southern towns and in the oases at the foot of the Tian-shan.

Inhabitants.

In a region of such strategic importance, and so often disputed by rival hosts, the inhabitants are naturally of very mixed origin. Tribes of Turki stock, the Uigurs and Usuns, Mongols of diverse banners, the Tanguts of Tibetan blood, and the Chinese have frequently contended for the possession of the pass connecting the Gobi with the snowy range. The work of the nomad warriors was soon done; after destroying everything in their sudden inroads they would retreat rapidly to the steppes of the plain or to the upland valleys. But the Chinese, while slower in their movements, were more tenacious and persevering. They founded garrison towns at convenient intervals, which soon became centres of culture, and the land was thus slowly peopled, while the wilderness was crossed by military and trade routes. The barbarian might return and burn the crops, level the fortresses, waste the cities. But after the storm was over a few years always sufficed for the Chinese to restore the network of their strategic routes and strongholds. Thus the cities of Northern Kansu, reduced to masses of ruins during the recent wars between Dungan Mohammedans and the Imperial Government, are again gradually recovering, while others are being founded by the Chinese agricultural settlers.

The Mongols ranging over these steppes belong mostly to the great family of the Eliuts, kinsmen of the Kalmuks. Some fifteen hundred years ago the country was occupied mainly by the Usun, supposed by some to have been of Teutonic stock, and who were distinguished from all their neighbours by their deep-set eyes and straight nose. These "men of horse-like features," as the Chinese described them, were gradually driven westwards to the Tian-shan and Tarim basin. Here Prjevalsky met many of the peasantry who seemed remarkably like his fellow-countrymen of Central Russia.

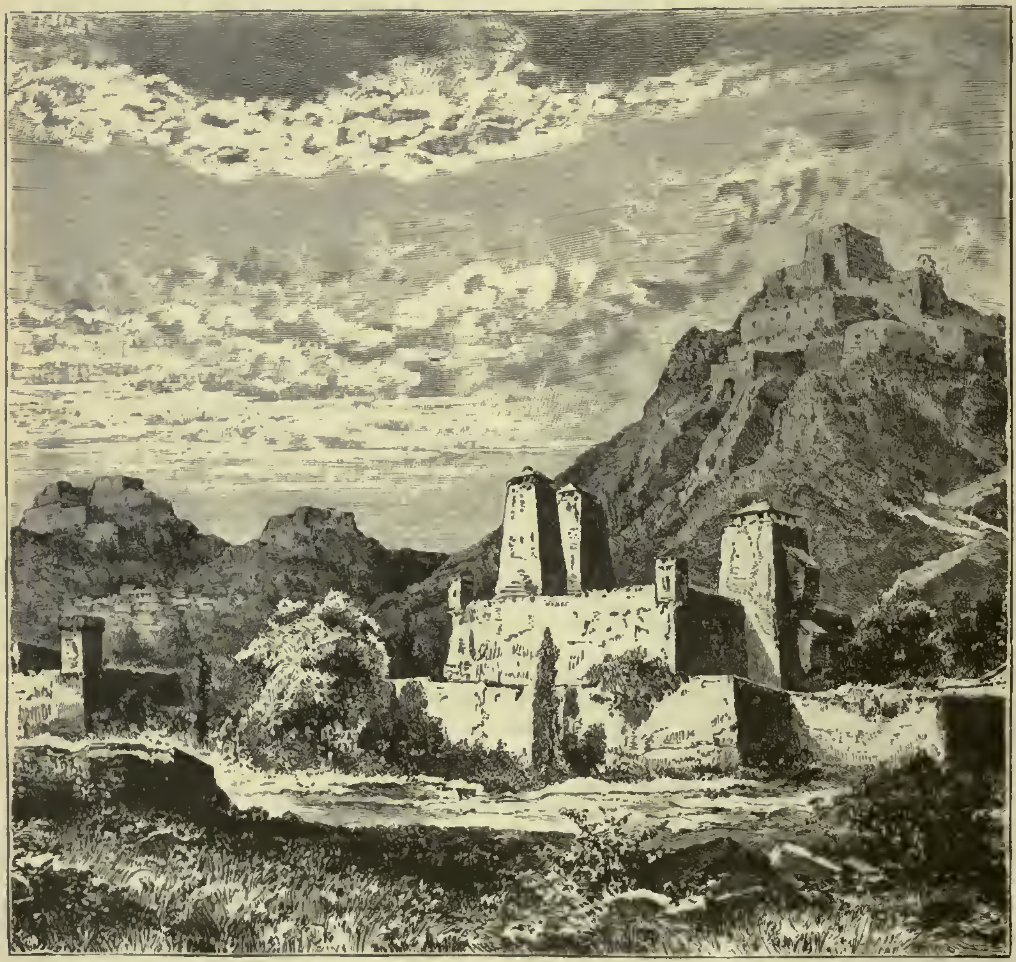
Topography.

The chief towns going westwards in the district connecting the inner and outer Kansu are the walled cities of *Liang-chew*, *Kanchew*, and *Suchew*, founded at the time of the first settlement two thousand years ago. From the combined names of the last two, capitals of the Kan and Su districts, the province of Kansu has been named. Kanchew has rapidly recovered from the disastrous civil war, and Liang-chew, a large and busy place, is one of the cleanest and most orderly cities in China. This is true, however, only of the portion comprised in the inner enclosure, the quarter stretching between the first and second wall being a mere mass of ruins. From the ramparts are visible a number of small forts dotted over the landscape, all of recent origin, having been erected since the Dungan insurrection

by the peasantry as a precaution against fresh troubles. Suchew, on the Tolaï, was formerly the bulwark of the empire. But when retaken by the Chinese in 1872 not a single house was standing.

Immediately west of Suchew stands the famous Kiayu-kuan, or "Jade Gate," so called because it led to the Khotan country, whence the Chinese traders brought back the precious mineral. But the gate does not, as is usually supposed, mark the verge of the desert, for shrubs and patches of herbage still line both sides of

Fig. 32.—Fortified Villages near Lantchew, Province of Kansu.



the routes beyond it. Nor is there any lack of running waters fringed by the poplar and weeping willow. Two centuries after Marco Polo, the Portuguese missionary, Benedict de Goës, was the first European to follow this route from Khotan; but he only reached Suchew, where he died in 1607. His companion, Isaac, the Armenian, was unable to save his manuscripts, although he continued the journey to Peking. Suchew is a great mart for the surrounding Mongols, as are also *Ngansi* (Ansi), Kwachew, and Shachew, or "Sandy Town," a place already

invaded by the sands of the western desert. Some fifteen hundred years ago, during the flourishing period of the kingdom of Khotan, Shachew was a chief centre of the caravan trade between China and the Tarim basin.

Yuiminsian, lying on the route to Hami, completely escaped the ravages of the Dungans, while *Ngansi*, on the same route, was entirely destroyed. Nothing is now to be seen on its site except heaps of rubbish, ruined temples, the scattered fragments of idols. The neglected gardens no longer check the advancing sands, which in some places are surging over the ramparts. Unless the place be soon resettled, it will disappear altogether. North of it the desert, properly so called, stretches away beyond the horizon in the direction of the Tian-shan. But this is not the region most dreaded by the traveller, although as far as the Hami oasis he meets little beyond a few camping-grounds on the banks of the streams, and the débris of ruined cities.

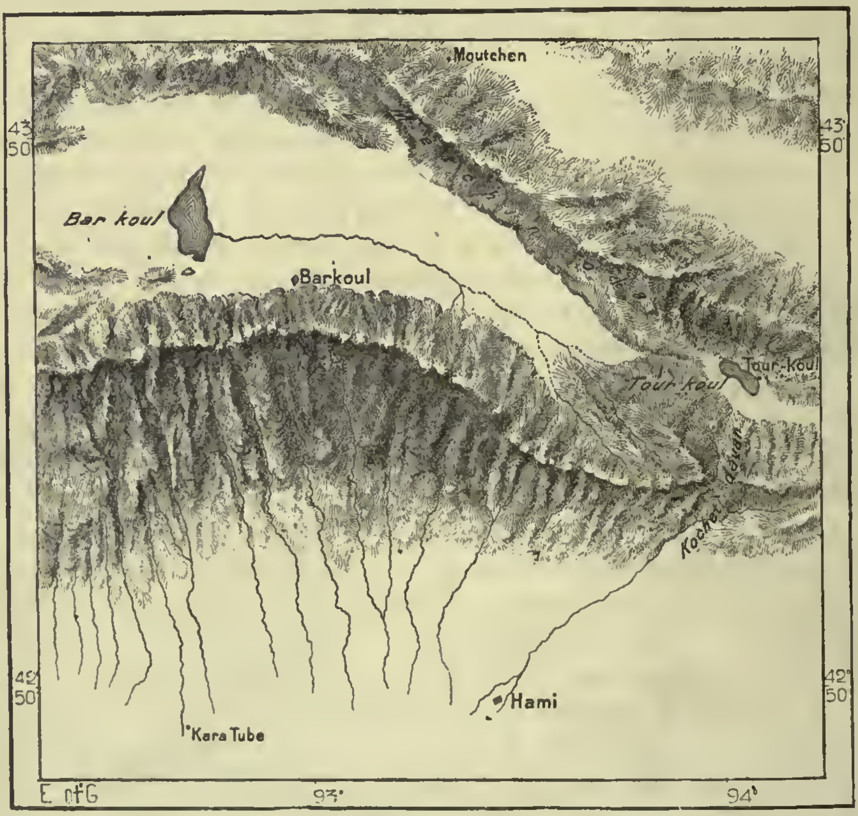
Hami (Khami, Khamil), described by Marco Polo under the name of Camul, is one of those cities which may be regarded as indispensable. It occupies a position clearly marked out for a centre of population. Hence, although frequently wasted or destroyed, it has always risen from its ruins, either on the same spot or in the immediate vicinity. The Hami oasis is a necessary resting-place for armies and caravans, whether arriving from or plunging into the desert. No conqueror advancing east or west would venture to push forward without first securing a firm footing in Hami, and commanding all the resources of the district. As a strategical point it is almost unrivalled in Central Asia. The zones of vegetation which fringe both sides of the neighbouring Tian-shan have necessarily become the "Nan-lu" and "Pe-lu"—that is, the southern and northern routes to the western world—and here, accordingly, converge the great historic highways. Yet Hami never seems to have been a large place, the strip of arable land surrounding it being too limited for the development of a great capital. During the recent rebellion it suffered much, its rice-fields, vineyards, and gardens, noted for their excellent melons, having been frequently wasted.

West of Hami, the two towns of Pijan (Pishan) and Turfan, now much reduced, occupy neighbouring oases extremely fertile, and yielding excellent cotton, sesame, wheat, besides all sorts of fruits, especially magnificent grapes. Although frequently traversed by Chinese travellers, Regel is the only European naturalist who has visited this region in recent times. Yet there are few districts of Central Asia more deserving of careful exploration. Between Pijan and Turfan rises an isolated cone, which is said to have vomited lava and ashes some ten centuries ago. The old geographers also speak of a mountain west of Turfan, rising in a series of terraces, all composed of blocks of agate. On this sacred mountain not a single plant is to be seen, and its dazzling brightness is caused by the sparkling agates, "the remains of the hundred thousand *lohan*," who have earned immortality by their virtues. Turfan was the last city recaptured by the Chinese in 1877 from the Dungans. It lies about 30 miles west of Old Turfan, which was destroyed four hundred years ago, and of which the walls, 50 feet high, are still standing. Their peculiar structure is referred by Regel to the Uigurs,

whom he regards as the ancestors of the present Dungans. Chinese porcelains and Buddhist statuettes are picked up amongst the ruins, and here are also a magnificent minaret and buildings resembling those of Samarkand. In the neighbourhood is the mosque of Mazar, "holier even than Mecca," with a chapel traditionally of Nestorian origin.

The towns on the northern slope of the Tian-shan as far as the Urumtsi valley are included in the province of Kansu. *Barkul,* so called from Lake Bar, which occupies a depression in the plateau, supplements the strategical position of Hami.

Fig. 33.—Oases of Barkul and Hami.
According to Rafailov. Scale 1 : 1,500,000.



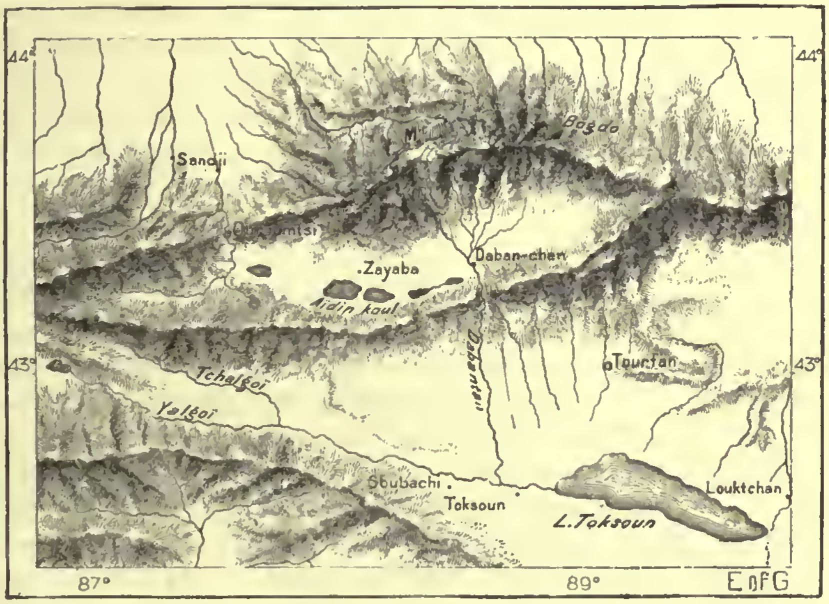
80 Miles.

It is the first military and trading station on the route leading from Hami to the Zungarian plains, and as the southern highways converge on Hami, so those of the north unite at Barkul, the Chinsi-fu of the Chinese. It is a large place, commanded by two fortresses, and surrounded by gardens and orchards. The Kosheti-davan, one of the three passes connecting the two cities, has an elevation of 9,100 feet above the sea, or about 5,300 above the surrounding oases. But this is a very slight altitude compared with that of the passes opening farther west, in the snowy range of Kongor-adzigan, while the Tian-shan cannot be turned towards

its eastern extremity without plunging into the desert. Hence the paramount importance of the Hami-Barkul route.

To Pijan and Turfan correspond *Guchen* and *Zimsa.* But here the Tian-shan has already branched off into two parallel chains, while the general elevation is such as to prevent easy communication from slope to slope. In the amphitheatre of hills developed still farther west lies the famous city of Urumtsi (Umritsi), the Tihoa-chew of the Chinese, or the Hun-miao; that is, the "Red Temple," founded in the Han dynasty. This was the Bishbalik of the Mongols and Tatars, which enjoyed great importance at different epochs, and which, thanks to its happy situation, has always rapidly recovered after every fresh disaster. As capital of

Fig. 34.—Urumtsi, Turfan, and surrounding Mountains.
From a Sketch by Venyukov. Scale 1 : 2,500,000.



60 Miles.

the Uigurs, it was the residence of princes who ruled on both sides of the Tian-shan over a vast domain designated, like the chief town, by the name of Bishbalik, or "Pentapolis." Here may have reigned one of the sovereigns known in Europe as "Prester John." In the last century the place was very populous, and took the foremost rank amongst the Chinese colonies of Northern Kansu. It was said to have had 200,000 inhabitants; but all were butchered by the Dungans, who were afterwards butchered in their turn. Urumtsi consists of two distinct quarters, the old town occupied by the traders, and the new or Manchu town. Notwithstanding its disasters, it does a considerable trade at present with Russia through the town of Chuguchak, and with Turkestan and China through the basin of an old lake, the centre of which is occupied by the town of Daban-shan. Like Turfan, Urumtsi

has its hot sulphur springs, and in the neighbourhood is a coal seam, which has long been in a state of combustion. One of the eminences commanding the city is yearly visited by the inhabitants, who here offer sacrifices to the "Holy Mount."

III.—ZUNGARIA AND KULJA, OR ILI.

Zungaria is the broad gateway leading from the Chinese to the Western world. The old gulf of the dried-up sea, which sweeps round to the north of Mongolian Kansu, penetrates far westwards between the southern offshoots of the Altaï and the Tian-shan. Here it ramifies into two branches, which in remote geological epochs formed two marine straits, and which have now become two historical routes for trade and migration. The eastern depression forming the common entrance of these routes is mostly strewn with marshes, remnants of the ancient sea, and is continued by two troughs, one of which runs north-west along the valley of the Ulungur River, which is itself continued beyond the lake of like name by the Black Irtish. The other skirts westwards the Katun and Iren-khabirgan ranges belonging to the Tian-shan system. The northern opening, where are collected the farthest head-streams of the Irtish, presents nearly everywhere an easy route over the hard clayey soil of the steppe, at an extreme elevation of scarcely 2,550 feet above the sea. The southern opening, which is much deeper, is occupied by sluggish steppe streams and closed basins, such as the Ayar-nor and Ebi-nor, continued westwards by the Ala-kul and the other lakes, all formerly united with Balkhash. Here also the route between Lepsinsk and Urumtsi presents little difficulty. The two plains have a mean elevation of from 650 to 850 feet, and the road, which lies between the Barlik and Zungarian Ala-tau, is formidable only from the fierce gales which here prevail. The space separating the northern, or Irtish, from the southern, or Tian-shan Pe-lu opening is partly occupied by the Jaïr and Barlik ridges and the eastern projections of the Tarbagatai and Sauru ranges. Yet it offers a third passage, which, although narrower, is more frequented than the other two, and which runs by the city of Chuguchak.

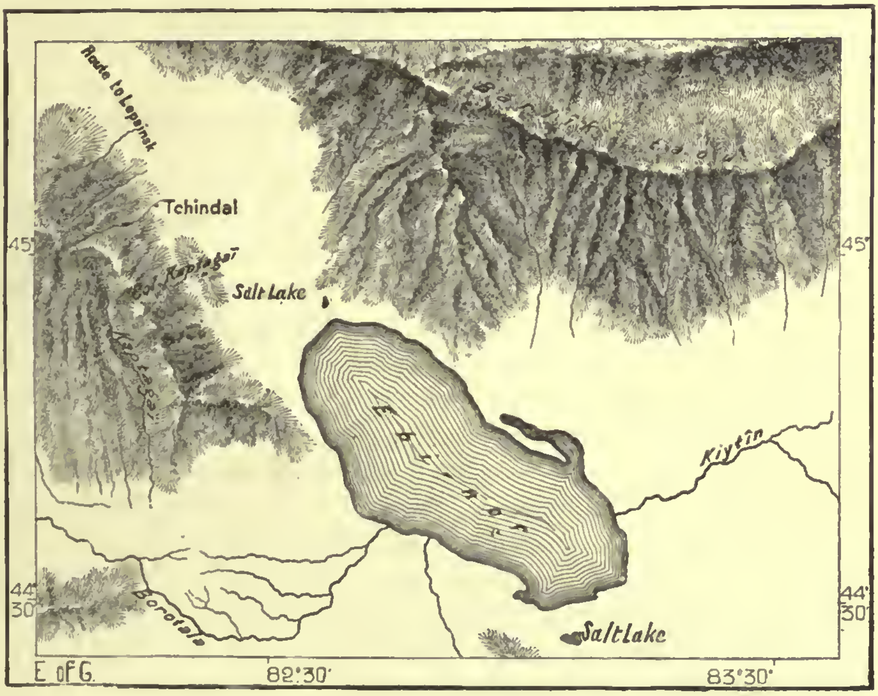
Historical Routes.

The expressions Tian-shan Pe-lu, or Northern Tian-shan route, in opposition to the Tian-shan Nan-lu, or Southern Tian-shan route, shows that the Chinese had fully appreciated the importance of this historic highway, which continues the road running from the Jade Gate obliquely across Mongolian Kansu through Hami and Barkul to Urumtsi. An imperial route, commanded at intervals by forts and military settlements, crosses the country from east to west as far as the triangular plateau bounded north by the Zungarian Ala-tau, south of the Boro-khoro range. From this point the Talki Pass (6,350 feet) and other neighbouring openings lead down to the rich Kulja valley, which already lies on the western slope of the

continent, and which is connected with all the routes of the Aralo-Caspian depression. Thus from the Black Irtish to the Ili River, a distance of about 300 miles, the semicircle of plateaux and mountain ranges surrounding the Chinese Empire is interrupted at various points by valleys and depressions of easy access. Through these natural highways the devastating hosts of the Huns, Uigurs, and Mongols advanced westwards, and the same tracks were followed by the Chinese when they overran the only districts which they still possess on the western slope of the con-

Fig. 35.—Ebi-nor.

According to Mouchketov. Scale 1 : 1,200,000.



30 Miles.

tinent. These are, on the one hand, the Upper Irtish valley, on the other that of the Ili.

The Russians, on their part, were fully aware, from the time of the first invasion of Siberia, that the road to China lay between the Altaï and the Tian-shan. For it was in this depression that they sought for the great lake of Kitai, a name since extended by them to the whole Chinese Empire. Nevertheless this was not the way they first took. Peking lying far from the centre of China, they were obliged to go round by the bleak and elevated eastern plateaux of Mongolia in order to reach that city from Kiakhta. But they now perceive how much better for their trade it would be to go directly from West Siberia through Zungaria and Kansu to China. From Zaisan to Hankow, which may be regarded as the true centre of the empire, there are no serious obstacles, and, except a break of about

160 miles practicable for pack animals, the whole distance of 2,600 miles may be traversed by waggons in about one hundred and forty days, whereas the roundabout journey *viâ* Kiakhta to Peking takes two hundred and two days. The future continental railway from Calais to Shanghai may be said to be already traced by the hand of nature through Zungaria, Mongolian Kansu, and Liangchew-fu to the Hoang-ho basin. Hence the importance attached by the Russians to the approaches of this route, which they secured before consenting to restore the Kulja district, occupied by them during the Dungan insurrection. On the other hand, Kulja itself, projecting between Zungaria and the Tarim basin, is of vital importance to the Chinese, enabling them as it does to reach the Kashgar and Yarkand oases directly from Zungaria, without going a long way round to the east of the Tian-shan.

Zungaria—Lake Sairam—The Ili, or Kulja District.

The two regions of Zungaria and Kulja, separated by the Boro-khoro range, differ greatly in size, population, and physical aspect. Like most of the Mongolian plains, Zungaria consists of monotonous expanses of yellow or reddish clays, with little vegetation except stunted shrubs, and along the streams the poplar and aspen. The usually barren southern slopes of the Chinese Altaï are, however, here and there relieved by patches of herbage, meadow lands, and even forests. The Southern Katun, Boro-khoro, and Talki chains are still better wooded, some of their slopes being entirely covered with conifers. But the most picturesque district of Zungaria lies in the south-west corner, where the depression is filled by the waters of the Sairam-nor. Although less extensive, this lake is deeper than the Ebi-nor, the Ayar-nor, or the Ulungur. It presents the appearance of a vast crater encircled by wooded hills, and rising only a few hundred yards above the Talki ridge, which is crossed by the imperial route leading down to the Ili valley. It is said to discharge its superfluous waters by a subterranean channel under the Talki Pass to the copious streams which water the plains of Kulja.

The territory of Kulja, one of the finest regions in Central Asia, comprises the central section of the Tian-shan, here rising to heights of from 16,000 to 24,000 feet, with its vast glaciers, grassy plateaux, forests of pines and apples, fertile, well-watered, and highly productive plains. Owing to their great elevation the valleys of the Tekes, Kunges, and Kash Rivers are thinly peopled, and nearly all the population is centred in the plains traversed by the middle course of the Ili, which farther on enters Russian territory, and finally loses itself in Lake Balkhash.

Inhabitants—The Zungarians—Dungans and Taranchi Wars and Massacres.

The Zungarians—that is, the "Tribes of the Left Wing"—have ceased to exist as a nation, and their name has survived only as a geographical expression, indicating the region which was formerly the centre of their power. They belonged to the Eleut section of the Mongol stock, and were the last of their race who succeeded

DUNGANS AND TARANCHIS—TYPES AND COSTUMES.

in founding an empire independent of China. The Zungarian state, established towards the close of the seventeenth century, became in a few years one of the most extensive in Asia. Their sovereign is said to have commanded a million armed warriors; from the mountains of Hami to Lake Balkhash all the land was subject to his rule, while Yarkand, Kashgar, and even some places in Western Turkestan paid him tribute. After three successive attacks his armies captured Lassa and the sacred stronghold of Potala in 1717. But dissension and intestine wars prevented the state from maintaining its independence, and although two imperial armies were annihilated, a third overthrew the Zungarian power in 1757. The whole country was subdued, and those of the rebels who failed to reach Siberia or Western Turkestan were all mercilessly put to the sword. A million of all ages and sexes perished in this overwhelming national disaster. The ruined cities were replaced by military stations and colonies of convicts from all parts of China and Mongolia, and these were soon followed by free migration to the depopulated regions. In 1771 the Kalmuks of the Turgut branch, then occupying the Lower Volga steppes, resolved to escape from the oppressive surveillance of the Russian Government, and return to the Zungarian plains, which still lived in the national traditions. Of the 300,000 who started from the western shores of the Caspian many thousands perished on the way. But according to the Chinese accounts the great majority succeeded in reaching their ancient homes, where they were joined by multitudes of other Mongolians from beyond the limits of the empire. Altogether about 500,000 migrated to the wasted lands stretching from Lake Balkhash to the Gobi, and the Emperor Kien-long could boast that he had become master of the whole Mongolian nation.

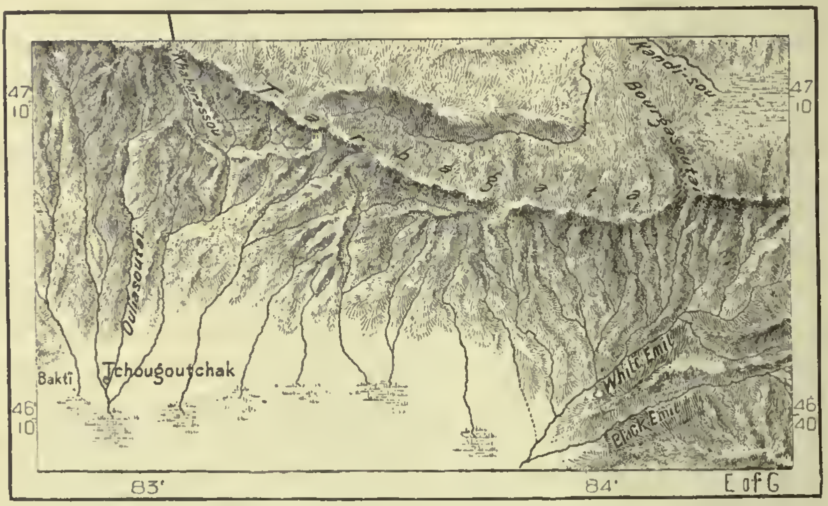
But fresh massacres were brought about by the differences of race and religion, and still more by the oppressive Chinese rule. A century after the overthrow of the Zungarian power the agricultural populations of the Ili basin rose against the mandarins and imperial troops. The Dungans—that is, the native Mohammedans—and the Taranchi—that is, the colonists from the Tarim basin—alone took part in the struggle, the Kazaks and Kara-kirghiz holding aloof, owing to the advantages enjoyed by their nomad life. The war, at first conducted with hesitation, gradually increased in violence, culminating in 1865 with the wholesale massacre of the Chinese, Manchus, and other military colonists from the east. The arrival of the Russians, to whom the Kulja territory was temporarily intrusted, put a stop to the flow of blood, but not before the 2,000,000 inhabitants of the country had been reduced to 139,000, mainly Dungans and Taranchi. By the new treaty, which restores Kulja to China, Russia has reserved a district in the north-west, where these rebels may find a refuge from the imperial vengeance. But such are the natural advantages of the Ili valley, that notwithstanding the frightful butcheries of 1865 this country is still more thickly peopled than Zungaria, which, with an area five times greater, has scarcely more than double the population.

Topography.

In North Zungaria there are no towns properly so called, although two military stations have acquired some importance as resting-places for the caravans crossing

the plains. These are *Bulun-tokoi,* on the south side of Lake Ulungur, and *Tultu* on a tributary of the Black Irtish, where the Russian dealers have an entrepôt for their exchanges with Mongolia. But the busiest mart in the country is *Chuguchak,* lying at the southern foot of the Tarbagatai range in the valley of the Emil, an affluent of the Ala-kul. Situated on the Siberian slope within 11 miles of the frontier post of Bakti, this town offers great advantages to the Russian traders, who are here as exempt from the exactions of the mandarins as in their own territory. In 1854 it exported to Russia tea to the value of 1,600,000 roubles, and had at that time a population of 30,000. Ruined during the Dungan insurrection, it is gradually reviving, and already comprises numerous Chinese, Manchu, Mongol, Kirghiz, and Taranchi settlers. It is surrounded by well-watered gardens, and some

Fig. 36.—Chuguchak and the Tarbagatai Range.
Scale 1 : 1,300,000.



30 Miles.

coal mines have been opened in the neighbourhood. The Khabarassu Pass (9,580 feet) is practicable for carts, and a caravanserai stands on its summit.

West of Urumtsi all the towns of Southern Zungaria—*Manas* (Kuïtun), *Karkara-ussu, Shikho, Jinho*—are military stations peopled by exiles, like most of the other settlements beyond the Great Wall. In this region colonisation is being rapidly developed, especially in a tract east of Manas, which is the most fertile part of Zungaria north of the Tian-shan. Near Shikho are some gold-washings, coal-fields, salt beds, and a lake of naphtha mentioned by Regel.

In the Ili valley *Old Kulja* alone has survived the recent troubles. It is a large place, containing 12,000 inhabitants within its square walls, beyond which stretch extensive suburbs concealed from the traveller by a belt of poplars. Although built by the Chinese, who call it Nin-yuan, Kulja has rather the aspect of a town of Russian Turkestan, its houses of beaten earth, with their clay roofs, strongly resem-

bling those of the Uzbegs and Tajiks in the Aral basin. The inhabitants are also mostly Mohammedans, and there is here a small Roman Catholic community founded after the overthrow of the Zungarian Empire. Old Kulja is an industrious place, with paper-mills, well-cultivated gardens, and extensive arable lands, on which during the Russian occupation the poppy was much cultivated.

West of Old Kulja the traces of the late civil war are everywhere conspicuous. The little Dungan town of *Suïdun* still exists. But of the neighbouring Bayandai, said to have had a population of 150,000, nothing remains except some crumbling walls overgrown with elms. *New Kulja* also, founded by the Chinese in 1764 as the capital of the country, is now a mere fort surrounded by heaps of bones and rubbish. Farther on follow other ruined cities, such as *Chincha-hodzi*, *Almi-tu*, *Khorgos*, *Jarkent*, and *Akkent*, and here the very land is being converted into a swamp by the former irrigating canals now choked with refuse. But so great are its natural resources that the country cannot fail soon to recover from its disasters.

Fig. 37.—Valley of the Tekes.

Scale 1 : 2,500,000.

30 Miles.

The province of Ili contains gold, silver, copper, lead, and graphite, besides extensive coal-fields, some of which have already been worked. Hot springs abound in its valleys, and no region of Central Asia presents such magnificent prospects as the banks of the Kash and the basin of the Tekes River at the foot of the glaciers and highlands above which towers the mighty Khan-tengri, or " King of the Heavens.'

IV.—NORTH MONGOLIA AND THE GOBI.

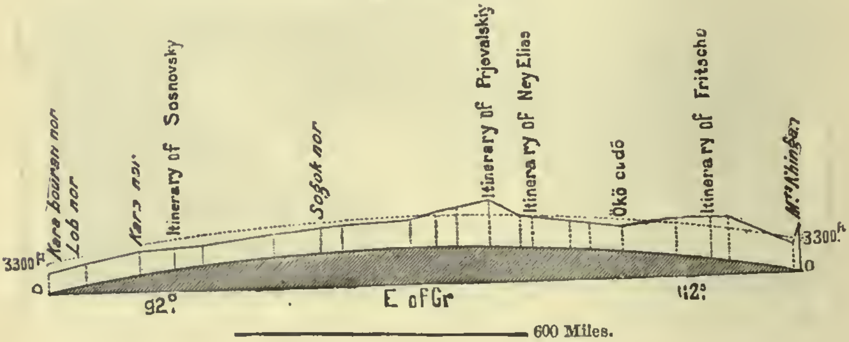
This vast domain of the Mongol nomads is of itself alone nearly as large as China proper, and, with Zungaria, Outer Kansu, and the Tarim basin, it occupies about one-half of the empire. But between it and the basins of the Hoang-ho and Yang-tze-kiang the contrast in climate, soil, and social life is complete. China is one of the best cultivated and industrious, as well as one of the wealthiest and

most densely peopled regions on the globe, whereas Mongolia is one of the most thinly inhabited, and even in many places separated from China proper by complete deserts. Yet here and there, and especially towards the south-east, colonisation has converted the country into a sort of Outer China, much more thickly peopled than Mongolia proper, and by the Chinese called Tsaoti, or "Grassy Lands." Thus has been formed an intermediate zone, which no longer belongs to Mongolia ethnically, although consisting of the same geological formations. The natural limit of the steppe is clearly marked by a ledge of granite rocks, over which has been diffused a vast stream of undulating lavas. But these lavas have been furrowed by the action of running waters, producing deep valleys, through which the Chinese agricultural settlers have penetrated into the plateau

The Great Wall erected by the Imperial Government between Mongolia and the Middle Kingdom is merely a visible landmark between two regions already separated by the hand of nature. This cardinal fact in the history of the Chinese world has not been without its influences on Europe itself. The clash between the

Fig. 38.—Section of the Gobi, going East and West.

Scale 1 : 24,000,000 for distances.
1 : 240,000 for heights.



two rival races has more than once re-echoed in hostile invasions or peaceful migrations to the farthest extremities of the West.

Mongolia and the Gobi differ from China less in the configuration of the land than in their climatic conditions. On both sides of the Great Wall the surface is varied by plains and valleys, plateaux and highlands, lakes and running waters. The Hoang-ho itself belongs at once to both regions. In its middle course it sweeps in a great curve northwards, thus separating the Ordos country from the rest of Mongolia. Nevertheless Mongolia and the Gobi may be described, in a general way, as a vast plateau slightly hollowed in the centre, and rising gradually from the south-west towards the north-east. The mean elevation, which is about 2,600 feet in the west, thus exceeds 4,000 in the east. Most of the land is bounded by ranges and mountain masses—the Altaï and Sayan on the north-west, the Munkusardik, Kenteï, and Baikal highlands on the north, the Khingan on the east, the uplands overlooking the plains of Peking on the south-east; lastly, the eastern extensions of the Kuen-lun and Nan-shan on the south. Towards the west alone Mongolia lies open in the direction of the Zungarian defiles and the closed basin of the Tarim.

The Ektag Altaï and Tannu-ola Ranges.

Owing to the greater elevation of the Mongolian plains, the southern slopes of the Altaï have a lower relative elevation than those facing northwards. Here, also, the snow-line is higher, rising to about 8,700 or 9,000 feet, altitudes reached by few of the northern crests, except in the west on the Kobdo plateau. In this region of Central Asia the most humid atmospheric currents are those which come from the nearest marine basin; that is, from the Polar Sea. Hence the rain-bearing and fertilising winds blow from the north-east. But these winds discharge their moisture on the northern slopes of the Altaï, so that those facing Mongolia are mostly destitute of vegetation. In several places the contrast is complete between the two sides—dense forests on the north, mere scrub and brushwood on the south.

The two chief ranges branching from the Altaï into Mongolian territory are the Ektag Altaï and the Tannu-ola. The former, sometimes also called the "Great Altaï," runs north-west and south-east parallel with the course of the Black Irtish and Ulungur. Some of its crests rise above the snow-line, whence the term Ektag, a dialectic form of the Turki Ak-tagh, or "White Mountains." But the range is pierced by deep depressions, through which the Russian caravans easily reach the Kobdo plateau from the Irtish valley. The range itself, as shown by the recent explorations of Potanin, is continued south-eastwards far beyond the meridian of Kobdo, after which it trends eastwards under the name of the Altaï-nuru. In this recently discovered section some of the peaks attain an altitude of 10,000 feet, and the Olön-daba Pass, crossed by the Kobdo-Barkul route, is no less than 9,400 feet high.

Farther east other ranges run parallel with the Ektag and Tannu-ola—that is, north-west and south-east; but these are everywhere cut up into irregular masses by erosion. Here is apparently the culminating point of the Altaï system, crossed by Ney Elias at the Bayan-ingir Pass (over 9,000 feet) on the route from Kobdo to Biisk. A snowy peak rising immediately north of the pass seemed to this traveller to have an elevation of 12,000 feet, or 830 more than the Bielukha, highest summit of the Russian Altaï.

The Tannu-ola, or eastern chain of the Kobdo plateau, stretches far east of the Altaï to the head-streams of the Selenga. Although some of its peaks pass the snow-line, the Tannu-ola is in many places but slightly elevated above the surrounding plains. From its base the plateau stretches for 120 miles southwards to the Khangai range, above whose wooded slopes several snowy crests are said to have an elevation of 10,000 feet. Between the Kinghai and the Altaï-nuru the steppe has a mean altitude of from 5,000 to 6,000 feet.

Water System—Lakes Ubsa and Koso.

All the depressions of the plateau comprised in the vast quadrilateral of the Mongolian Altaï are occupied by lacustrine basins. One of these is the saline Ubsa-nor, one of the largest lakes in the Chinese Empire, with an area of at least

1,200 square miles, but with no outflow, although receiving the waters of a vast amphitheatre of hills. The other lakes, also saline because without emissaries, if less extensive than the Ubsa-nor, sometimes belong to larger hydrographic systems. The river Dsabgan, rising on the southern slope of the Tannu-ola, sweeps round the north-west corner of the hilly Uliasutai plateau, and after receiving its torrents disappears in the saline marshes south of the Ubsa-nor. To the same basin belongs the Kobdo or Kara-su Lake, which receives the waters of the Ektag Altaï through the rivers Kobdo and Buyantu. The lower lakes are fringed by poplars and aspens; but elsewhere trees are rare, and the vegetation of these hilly regions on the whole resembles that of the steppe.

East of the Tannu-ola the Mongolian territory penetrates far into the region draining to the Arctic Ocean; for the Upper Yenisei and Selenga basins, which flow to the great Siberian rivers, still belong to Mongolia. The nomad pastors of the "Grassy Lands" naturally sought to extend their domain to the whole region of pasturage. Southwards their natural limit is the desert, northwards the forest. All the intermediate zone, in whatever direction the rivers may flow, is frequented by their flocks. Hence they have occupied all the "Kem," or head-streams of the Yenisei, besides the extensive basin of the Selenga. Here is the romantic Koso-gol, whose blue waters, sacred in the eyes of the Mongolian Buddhists, reflect the lofty crest of the Munku-sardik, with its larch groves, red escarpments, and diadem of glaciers. The Koso-gol is not a closed basin, like the lakes of the Kobdo plateau; for it discharges its sweet waters through the Eke-gol to the Selenga.

North-east Mongolia, lying east of the Selenga, may be regarded as belonging to the Amur basin; for the Kemlen, which flows parallel with the Onon to the Dalai, or "Sea," formerly united to the Khaïlar, is one of the chief affluents of the Argun, or Upper Amur.

The Gobi Desert.

South of this region stretches the Gobi desert, which, although crossed by some caravan routes, is nowhere permanently inhabited. The Gobi—that is, "Sandy Desert," or "Shamo" of the Chinese—forms the eastern extremity of the vast zone of arid lands obliquely traversing the eastern hemisphere from Senegal to the Khingan range. Like the Takla-makan, the Western Turkestan sands, the Persian and Arabian wastes, and the Sahara, the Gobi lies on the track of the dry winds. In winter the prevailing atmospheric current is from the north-west, which, after traversing the Siberian plains for a distance of 1,800 miles, discharges its little remaining moisture on the Sayan slopes, so that nothing is left for the Mongolian plateaux. In summer the south-east monsoons prevail; but nearly all the humidity brought by them from the Pacific falls on the slopes of the parallel ranges and terraces separating China proper from the desert plateaux. Nevertheless the Gobi is sometimes visited by heavy summer rains, forming here and there temporary meres and lakes, which are soon evaporated, leaving nothing behind except a saline efflorescence. Elsewhere the ground is furrowed by sudden torrents, and here the nomads sink their wells, hoping thus to husband a little moisture when the plateau

has again become an arid waste. But no permanent stream has been developed in the whole region, some 480,000 square miles in extent, stretching from the Kemlen southwards to the Hoang-ho, between the Khingan range and Mongolian Kansu east and west. The rapid evaporation on the Gobi plateaux is due to the violence of the winter gales and the high temperature in summer. For the Gobi is at once Siberian and Indian in its extremes of temperature, and these extremes at times

Fig. 39.—View in the Gobi.

succeed each other within the space of a few hours. In the South-eastern Mongolian highlands Prjevalsky recorded on March 16th, 1872, a temperature of 68° Fahr. in the shade, followed during the night by 18° below freezing point.

The intense cold of the Mongolian winters, aggravated by the terrible northwest winds, explains the errors of the old geographers, who gave the Gobi plateau an altitude of more than 8,000 feet above the sea. This has been reduced by Ney Elias and other recent explorers to a mean elevation of about 4,000 feet, rising in

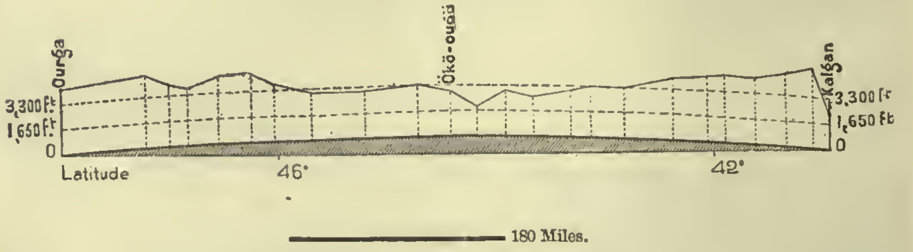
some places to 4,500 and even 5,000, sinking in the lowest depressions, formerly filled by salt lakes, to 3,000 and even 2,600 feet. Notwithstanding these discrepancies there is little to relieve the monotony of the vast rolling plains except a few rocky eminences rising here and there above the boundless waste of yellow sands. For days and days the Gobi desert everywhere presents to the weary traveller the same interminable picture of these vast undulating plains, scarcely relieved by a few patches of scrub and lines of hillocks succeeding each other like waves on the surface of the shoreless deep.

The soil of the Gobi proper is almost everywhere composed of reddish sands interspersed with quartz pebbles, agates, cornelians, or chalcedony. The depressions are filled with saline waters, or efflorescences of saltpetre, which the Mongols call *guchir*, and which the camels eagerly lick as they pass. Grass is very rare, and the yellow, grey, or reddish soil is nowhere entirely concealed by the scanty tufts of vegetation. In the argillaceous hollows grows the *dirisu* (*Lasiagrostis splendens*), a shrub with twigs hard as wire, which is also a characteristic feature of Western Turkestan. But true trees are nowhere found except perhaps in a few

Fig. 40.—Section of the Gobi between Urga and Kalgan.

Itinerary of Fritsche.

Scale 1 : 10,000,000 for distances.
1 : 140,000 for elevations.



well-sheltered cavities. From Kalgan to Urga, a distance of over 420 miles, Pumpelly met two, and Russell-Killough five stunted trees only. Elsewhere grow a few wretched elms, which the Mongols contemplate with a sort of awe, not daring even to touch for fear of desecrating them. The wind, even more than the natural barrenness of the soil, prevents the growth of any vegetation except low, pliant herbage. Withered plants are uprooted and scattered by the gale over the steppe like patches of foam on the stormy sea. In these regions, as on the Tibetan plateaux, the only fuel is the droppings of the animals, which are carefully collected, and which are always the first thing supplied on his arrival in the camp to a friend or stranger for his evening fire. Such are the laws of nomad hospitality.

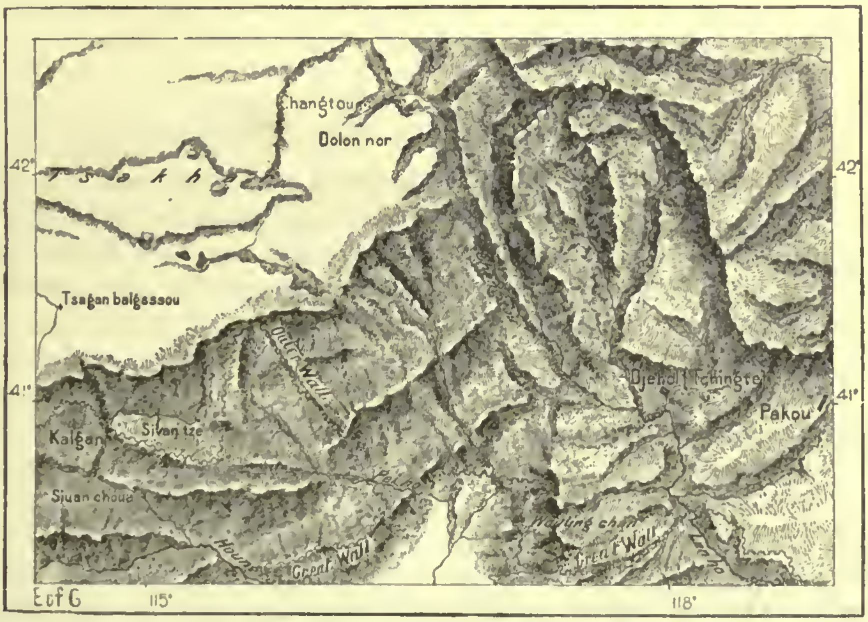
The fauna of the Gobi is no more varied than its flora. As in Siberia, the steppe is often honeycombed with the burrowings of the *lagomys*, a species of marmot no bigger than a rat, always inquisitive, always on the alert, incessantly popping out of their underground dwellings to see the passing wayfarer, and suddenly disappearing at his approach. Threatened by the wolf, fox, and birds of prey, they live in a state of constant trepidation, starting at every shadow, trem-

bling at every sound. The largest mammal in the Gobi is the *dzeren*, or *Antilope gutturosa*, an animal probably unsurpassed for speed. Even when mortally wounded, or with a broken leg, he will outstrip the fleetest horse, and such is his tenacity of life that unless the bullet pierce his head, heart, or spine, he always escapes capture. The herd consists usually of thirty or forty head, although they are occasionally met in flocks of several hundreds, and even a thousand. Of birds the most common are the vulture, which follows in the wake of the caravan, and the raven, which will boldly perch on the camel's hump and draw its life-blood. Above the grassy steppe hovers the lark, endowed with as sweet a song as the European species, and also possessing the faculty of imitating the notes of other songsters. The reedy marshes and lakes harbour multitudes of duck, which migrate in winter to South China.

The Khingan and In-shan Highlands.

Eastwards the Gobi is limited by uplands, which have not yet been thoroughly explored, but which are known to form a long frontier range rising above the

Fig. 41.—South-East Corner of the Mongolian Plateau.
According to Fritsche. Scale 1 : 3,600,000.



60 Miles.

Manchurian plains, and the lower steppe lands commonly called the East, or Little Gobi. This is the Khingan chain, which stretches northwards to the Argun (Amur), and which deflects this river towards the parallel Stanovoi ranges. According to Fritsche none of the crests exceed 8,300 feet, thus falling short of the snow-line. In the last century the missionaries Gerbillon and Verbiest had spoken of

the Pecha, a mountain mass some 15,000 feet high, forming the southern limit of the Khingan system. But Fritsche and Prjevalsky have shown that in this section there are nothing but low eminences, while the highest peak is only 6,960 feet above the sea, or scarcely more than 1,500 or 1,600 feet above the Gobi steppes. On its western slopes the Khingan consists of rounded treeless crests, but on the opposite side there are many green upland valleys, especially towards the south-east extremity of the plateau.

The gneiss and lava ranges bounding the Gobi north of Peking are continued under various Mongol and Chinese names south-westwards, skirting the valley of the Hoang-ho along the northernmost section of its course. Collectively known as the In-shan, this system terminates in the saline Ala-shan wastes to the north-west of the great bend of the Yellow River. Here the granite, gneiss, and porphyry crests rise to heights of from 6,600 to 9,000 feet, and the polished surface of many betrays the former presence of glaciers. These highlands are distinguished from most of the Mongolian ranges by their copious streams and rich vegetation. The Yellow Sea, which penetrates through the Gulf of Pechili far inland, sends to the In-shan Mountains sufficient moisture to clothe them in a green mantle of herbage, shrubs, and even forest trees. Here flourish the hazel, the eglantine, wild peach, aspen, birch, maple, elder, elm, sorb, and wild plum. But the Chinese have in some places completely disafforested the slopes, and in many valleys nothing is now to be seen except a few scattered and withered trunks.

The Ordos Plateau and Ala-shan Uplands.

Large herds of antelopes frequent the In-shan pastures, especially in the vicinity of the Buddhist monasteries; for the Mongol lamas, like those of Tibet, forbid the killing of these animals. Amongst them is also found a species of the argali, or mountain sheep, and the tiger and panther are said still to haunt the In-shan valleys. South of this range the great bend of the Hoango-ho encloses what must be regarded as a detached fragment of Mongolia; for the Ordos plateau still belongs physically and ethnically to the same natural region as the Gobi, although separated from it by the broad valley of the Yellow River, with its fertile plains and Chinese towns. This tableland, which has a mean elevation of about 3,500 miles, forms a quadrilateral of over 40,000 square miles, bounded on three sides by the Hoang-ho, and on the south by mountain ranges whose southern slopes belong to China proper. The soil, far more arid than that of Mongolia itself, consists nearly everywhere of sand or clay charged with salt, and quite unsuited for cultivation. Immediately south of the Hoang-ho valley the surface is intersected by low dunes, mostly from 40 to 50 feet high, of a uniform yellowish colour, relieved here and there by a few green oases, and animated only by the grey or yellow lizards, which are scarcely distinguishable from the surrounding sands. Towards the centre of the plateau the Dabsun-nor morass forms a vast deposit of salt mingled with a nitrous efflorescence, and encircled by low hills. As in the Kashgarian deserts, the very air in these frightful solitudes is full of awe-inspiring

sounds, associated in the popular fancy with the massacres of Jenghiz Khan, who is supposed to have died here, and to now lie buried in a silver and wooden coffin somewhere under a yellow silk tent. At a respectful distance from the spot are also interred the various members of his family, and a horse and sheep are said to be still sacrificed every evening to the shades of the mighty conqueror.

Some 20 miles south of the Hoang-ho the ruins are visible of a city now buried in the sands, whose ramparts were 5 miles long both ways, and about 50 feet thick. At present most of the land beyond the river valley is a complete solitude, and the Dungan rebels have even destroyed the encampments of the Ordos Mongols. The very cattle have again run wild, losing the dull, heavy air acquired in the domestic state, and assuming the habits of a free life. In two or three years the change was complete, and at the approach of man these animals take to flight like wild beasts. Camels and horses also roam in herds over the steppe, but all the sheep have been devoured by the wolves. In 1871, when Prjevalsky explored the country, its only visitors were a few traders, who came in search of the liquorice plant, characteristic of this region.

Near the right bank of the Hoang-ho, where it flows northwards, a range of hills gradually increasing in elevation attains towards its southern extremity the proportion of true mountains. This range, known as the Arbuz-ola, is continued on the other side of the river by the loftier chain of the Ala-shan, whose highest summits, the Dzumbur and Bugutu, 10,000 and 11,000 feet respectively, still fall short of the snow-line. Both sides of the Ala-shan are fringed by a narrow strip of verdure, watered by the rivulets flowing from its slopes. But its flora is very poor, although the uplands are here and there clothed with forests of pines, spruce, willows, and aspens, the resort of the deer, musk deer, and ibex.

Beyond the Yellow River the sands of the Ordos country are continued westwards by a still more barren and desolate region. Its fierce sand-storms, combined with the absence of water and herbage, render this one of the most inhospitable sections of the Gobi. This Trans-Ordos steppe stretches uninterruptedly between the southern spurs of the In-shan and the northern extremity of the Ala-shan as far as the Az-sind River and the plains of the Mongolian Kansu. For a stretch of some 300 miles the eye lights on nothing but sandy and gravelly wastes, or saline clays overgrown with the hardy saksaul and thorny sulkhir (*Agriophyllum gobicum*), the latter yielding a small grain from which the Mongols make a sort of flour. Here the lowest depression is occupied by the Jaratai-dabasu lake bed, which has a circumference of 30 miles, and is everywhere incrusted by a layer of pure salt from 2 to 6 feet thick. "The sparkling surface of the Jaratai-dabasu appears like water in the distance, and resembles ice when you are near it. So deceptive is its appearance that a flock of swans, apparently attracted by the sight of water in the desert, descended before our very eyes almost to the surface of the false lake, but discovering their mistake, rose again in the air with affrighted cry, and continued their flight."—*Prjevalsky.*

THE GREAT WALL.

The border-line between Mongolia and China proper was formerly indicated by the Great Wall, which, including all its windings and the double and triple lines erected at some points, has a total length of about 2,000 miles. Allowing a mean height of no more than 26 feet and a width of 20 feet, this prodigious structure will represent a solid mass of some 4,000 million cubic feet of masonry. Those who assert that the Great Wall was of no more practical use than the pyramids of

Fig. 42.—THE GREAT WALL. VIEW TAKEN AT THE NANKOW PASS.

Egypt forget that for many centuries it served to arrest the military expeditions of the Hiungnu, ancestors of the present Mongolians. The sentinels mounting guard on the towers erected at intervals along the ramparts gave timely warning of the enemy's approach, while all the natural passages were guarded by encampments. Every gate had its little garrison, around which towns soon sprang up, serving as market-places for the surrounding populations. Sheltered behind these

barriers, the Chinese were able to develop their national unity, and concentrate their energies, in order henceforth to enter into continuous relations with the Western world. When the "wall of 10,000 li," forced at last by Jenghiz Khan, thus lost all further strategic importance, it had at least already protected the empire for a period of fourteen hundred years.

In its present condition the Great Wall belongs to various epochs. In the severe Mongolian climate, with its sudden and violent transitions of temperature, a very few years suffice to crumble most ordinary buildings, and it may be doubted whether any portion of Shi Hoangti's original work still survives. Nearly all the eastern section from Ordos to the Yellow Sea was rebuilt in the fifth century, and the double rampart along the north-west frontier of the plains of Peking was twice restored in the fifteenth and sixteenth centuries. With the changes of dynasties and the vicissitudes of frontier wars, the lines themselves were modified, portions being abandoned in one place, consolidated in another. Thus is explained the great difference in the style and workmanship at various points. North of Peking it is still in a state of perfect repair, whereas in many western districts along the Gobi frontier it is little more than an earthen rampart, while for considerable distances all vestiges of the wall have disappeared. Similar structures in the Transbaikal region north of Mongolia, traditionally referred to Jenghiz Khan, still recall the perennial struggles between the agricultural populations and their nomad neighbours.

Inhabitants—The Mongolians.

The Mongolians, against whom the Chinese were fain at one time to protect themselves by such vast barriers, are a people without any national cohesion. Conquerors may have occasionally united them in a single army; but on their return to the steppe they again broke up into tribal divisions. Thanks to the intestine feuds maintained between these sections of the race, the Chinese have been enabled to triumph over the Khalkhas, Eliuts, and Zungars, while the Buriats and Kalmuks fell a prey to the Russians. The very name of Mongol was applied during the two centuries of their political supremacy to all the different races who took part in the conquests of Jenghiz Khan and his successors, penetrating on the one hand into the Chinese Empire, on the other into the heart of Europe. Even after the extinction of the family of Jenghiz the vast empire of Timur was still attributed to the Mongolians, although it really represented the reaction of the Western Asiatic world against the East. Later on the title of "Great Mogul" was extended to Baber and his successors on the throne of Delhi, although they had no longer any Mongol warriors in their armies. Pride in a remote descent from the great conqueror was the only claim to the title. The Zungarian Empire, founded towards the end of the seventeenth century, was on the other hand really of Mongol origin; but it nowhere stretched beyond the Central Asiatic plains and plateaux.

In mediæval times the Mongols were confused with the Tatars, or Tatas, a feeble tribe, in the twelfth century occupying the In-shan valleys, but which, in the

chaos of conflicting elements, contrived to give its name to Mongols, Manchus, Turks, and to all the warlike nomad peoples of Asia and East Europe. Neither Jenghiz nor any of his people took pride in this name of Tatar, which belonged originally to an obscure section of one of the seven Mongolian nations. The title of honour assumed by them was that of Blue Mongols, "because azure is the sacred colour of heaven," and they were themselves the masters of the earth. But the world-wide fame of the Tatars was due to the fact that they generally formed the van of the Mongol invasions, while the name itself suggested a mythological

Fig. 43.—Mongol Invasions and Conquests of their Successors.

Scale 1 : 90,000,000.

play of words with the Tartarus of classic writers. "Let us be consoled," said St. Louis of France; "for if they come hither we will hurl them back to the Tartarus whence they came, or else they will send all of us to heaven!" At present the term is no longer applied, except in the vaguest way, to the Mongols proper or their Manchu neighbours, and is now restricted to the peoples of Turki stock, although nowhere acknowleged or adopted by them.

Before the period of their conquests the Mongolian tribes were restricted to the northern and eastern portions of the vast region now known by the general name of Mongolia. Here all the streams and lakes are worshipped as gods, and legends

are associated with every mountain, which always bears the title of Khan, or king. The extreme north-east corner of this domain is now occupied by the Manchu Solons and other Mongol tribes, which are more or less mixed with foreign elements, and which furnish numerous recruits for the military colonies founded by the Chinese in the western regions of the empire. The Khalkhas, so named, like the Mongols themselves, from one of their ancient chiefs, are mainly concentrated in the northern steppes near the kindred Buriats, now subject to Russia. The eight tribes of the Tsakhars occupy the south-eastern steppes towards China, and these the Imperial Government has specially intrusted with the defence of the frontiers against the Northern Mongols. The Ordos, now almost extinct, dwelt in the fluvial peninsula named from them, and farther west are the Eliuts, more or less mixed with Turki elements, and embracing the Kalmuk hordes of the Altaï

Fig. 44.—Inhabitants of Monoolia.

Scale 1 : 33,000,000.

600 Miles.

and Tian-shan. Lastly, in the Upper Yenisei basin, the Turki Dorkhats and Donvas, or Urianhai, have been largely assimilated to the Mongolians. In a general way the race is divided into Khalkhas, or Eastern, Eliuts, or Western, and Buriats, or Siberian Mongolians. But the only real division is that of the Khoshun, or "Banners," and according to the vicissitudes of wars and alliances the tribes of the various Banners combine in more or less powerful confederacies.

The national type seems to have been best preserved amongst the Khalkhas, who also claim a certain superiority over the other branches on the ground that amongst them are the families of the Taïtsi, descendants of Jenghiz Khan. Yet the Khalkha least resembles the typical Mongol type, as described by most ethnologists. He is rather brown than yellow, with open eyes, not inclined obliquely, like those of the Chinese or Ostiaks. He has, however, the broad flat

features, prominent cheek bones, black hair, and scant beard usually described as distinctive characteristics of the type.

The Mongols are generally of middle size, with strong constitutions, capable of resisting the extremes of temperature, and enduring hardships which would kill most Europeans. But although they will remain for fifteen hours in the saddle without a murmur, they will complain of having to walk 100 yards from their tent, for they are unaccustomed to walking, and even feel ashamed to be seen on foot. Hence they despise the dance and all foot exercises, but display extraordinary skill in every kind of horsemanship. They are excessively fond of racing, in which young and old all take part. At the races held in honour of the birth of a Mongol Buddha in 1792 no less than 3,732 riders competed for the prize.

It is surprising that such a hardy race, descendants of the conquerors of Asia, should have so completely lost all political influence in the Old World. As a nation they have even become poltroons, and recently thousands might have been seen flying in disorder before the undisciplined bands of Dungan rebels, whose courage was largely inspired by the terror of the foe. Subdued, dismembered, and disorganized, the nation feels its weakness. How different the craven attitude of the present nomads towards European travellers crossing the steppe from the haughty bearing of Kuyuk Khan, who in reply to the Pope's legate, John du Plan Carpin, proclaimed himself the avenging instrument of God! "I have the right to kill you," he added, "since you resist my will; and the proof of my right is my might. Think you I, a man, would have the strength to do these things if God had not lent me His arm?" Before Carlyle and other modern theorists these Asiatic rulers of men had discovered the formula of might.

At the same time the energy formerly displayed by the Mongol race was due not only to their personal bravery, discipline, and warlike spirit, but also to their natural love of equity and to the progress they had already made in social culture. For they were by no means the barbarians pictured in the mediæval chronicles. They had, in the first place, the grand privilege of being far more free than most of the peoples subdued by them. According to their *Yassak*, or legal code, they gathered once a year for the *thoï*, or great feast, when the princes appeared before the assembled multitude to be questioned, reproved, and even deposed for the wrongs committed by them in the exercise of their powers. The conquered nations were themselves treated with far more consideration than the Mohammedans or Christians were at that time wont to show towards the peoples subdued by them. "The empire has been acquired on horseback," said a minister to Jenghiz Khan, "but it cannot be governed on horseback." The Mongol sovereigns displayed a high sense of justice in adjudicating between their subjects of all races and languages, and amongst those who received lands free of imposts every nationality in the empire was represented. The Mongols also showed a degree of religious toleration, at once the amazement and reproach of the Catholic missionaries. Mohammedans and Christians were among the friends and advisers of the Khans, and such names as John, Nicholas, George, and Mark occur in the lists of the imperial magnates.

Exhausted by their struggles, morally debased by the ferocity of warfare, the

Mongols soon relapsed into barbarism. Most of them have doubtless still the same sense of right, the same kindly feeling for strangers and heartiness for their equals, whom they always address as "comrades." But they have become extremely indolent, while their filthy habits and disgusting gluttony baffle all description. They have allowed slavery to take root in their social system, and many families descended from prisoners of war are condemned to tend the flocks of the Khans, who claim the power of life and death over them. However, the pasture lands have not yet been divided, and still belong to all, like the air we breathe and the water of the lakes and running streams. At the same time an abstract right to the use of the land can be of little consequence to those who own no flocks or herds, and the nobles and lamas, to whom the live stock belongs, are *ipso facto* the proprietors of the soil. The high priest of Urga alone possesses a domain peopled by one hundred and fifty thousand of his slaves.

Few of the Mongols have turned to the cultivation of the land, nearly all being still exclusively occupied with their herds of camels, horses, and cattle, and their flocks, mostly of fat-tailed sheep. When they meet the first question turns on their live stock, more important in their eyes than the family itself. They cannot understand that there can be any human beings so forsaken of heaven as not to possess domestic animals, and receive with incredulity the assurances of the Russian travellers that they own neither sheep nor camels. All the work falls on the women and children, who not only tend the herds, but also manufacture the household utensils, saddles, arms, embroidered robes, tent felts, camel-hair cordage, and other articles of camp life. From the Chinese and Russians they procure all the provisions and other supplies they require. Tea especially is indispensable to them, for they never drink cold water, to which they even attribute a malignant influence. Besides tea they also drink kumis, mare's milk, and too often the vile brandies supplied to them by the Russians. Their diet consists almost exclusively of mutton, camel, and horse flesh, varied with a sort of paste or dough; but the flesh of birds and fish is by most held in special abhorrence.

The Mongol speech, which belongs to the Ural-Altaic family, and which has a large number of roots in common with the Turki branch of that family, is spoken with considerable dialectic variety by the Khalkhas, Buriats, and Eliuts, who are not always able to converse together. Many foreign elements have everywhere crept in, and the pure national speech has been much corrupted by contact with the Chinese, Manchus, Tibetans, and Turki tribes on the frontiers. Over two thousand years ago it was reduced to writing, at that time employing the Chinese ideographic characters, which were supplanted at the beginning of the tenth century by an alphabetical system. This was again changed in the twelfth century for another style, employed to translate the Chinese classical works. Unfortunately all these works have perished, and the very characters in which they were written have been completely forgotten. During the period of conquest the Mongols adopted the alphabet of the Uigur Turks, but a national system invented in 1269 by a lama, honoured by the title of "King of the Faith," finally prevailed. The Mongols write with a pencil on wooden tablets painted black and powdered with sand or ashes.

The liturgical works are written in *Enerkak*, or Tibetan, the sacred language of the Mongolians since their conversion to Buddhism. Hence the priests, who wish to know something more of their religion than the outward form, are obliged to study Tibetan; yet those whose knowledge is limited to the reading of the sacred volumes have all the more veneration for the text that they do not understand its meaning. The Kalmuk lamas have sometimes paid as much as £2,000 for the Kanjûr and Tanjûr, and the Siberian Buriats have given seven thousand oxen for a single copy of the Kanjûr.

Tibet is the "Holy Land" of the Mongolians, who regard the Dalai-lama as of superior divinity to their own Taranath-lama, or Jetson-tampa. Nevertheless the latter is also a *Burkhan*, or "living Buddha," who under divers forms is supposed to have succeeded to himself since the middle of the sixteenth century, if not from a more remote period. At each apparent death he is required to renew himself in Tibet, whither a solemn embassy sets out to recover him in the form of an infant. Formerly the Mongolian pontiff resided at Kuku-khoto, near the Chinese frontier, but, having been assassinated in consequence of a dispute about preeminence with the Emperor Kang-hi, he was ordered by imperial decree to get born again at Urga, in North Mongolia. Since that time the names of the Buddhas elect must be first submitted to the Foreign Office at Peking.

The chief Mongolian divinities, like those of Tibet, are of Hindu origin, but some are also of national descent. Nor are these the least venerated, although occupying a lower rank in the Mongol pantheon. Such, for instance, is Yamandag, or "Goat Face," figured with the head of a goat or else of an ox, wearing a coronet of human skulls, vomiting flames, and in his twenty hands grasping human limbs or instruments of torture. He is painted a deep blue, and his wife a light blue, like the colours of the Oxford and Cambridge rival boating factions.

The Mongols are animated by great religious zeal, sparing themselves no hardships and submitting to the severest penances to obtain remission of their sins. Some have been known to make the round of the lamassaries, measuring their length at every step in the dust or mud. The best of their incomes goes to the lamas, and the temples and monasteries everywhere bear witness to the boundless generosity of the faithful. When the lamas go the rounds collecting alms in the name of the "Old Buddha" they are always well received, and they soon return followed by pack animals laden with gifts and contributions for the building of the temples. The priests are the true masters of the land, and they form the only class living in comfort without the necessity of working for their daily bread. Hence the proportion of clergy to the rest of the population is far greater than in any other country, not even excepting Tibet. One-third is said to consist of lamas, or "white men"—that is, shaven—and there is scarcely a family that is not represented by one or more of its members in the lamassaries. Nowhere else are the outward forms of religion more scrupulously observed, and even the Chinese of the frontier, when retailing their adulterated wares at short measure, do not forget to wrap the parcels in paper bearing the sacred formula, *Om mani padme hûm.* The Chinese Government, which pays little heed to its own bonzes, protects the

Mongolian lamaism by guaranteeing a certain revenue to most of the monasteries. Its constant policy has been to increase the priestly order, in order thereby to diminish the natural growth of the population, and replace by peaceful communities the old encampments of its hereditary enemies. Nevertheless the national hatred still smoulders, fomented by social differences and conflicting interests. Most of the savings of the Mongolian tribes find their way to the coffers of the Chinese dealers and usurers, whence they pass into the hands of the lamas.

Although the monasteries are both numerous and extensive, some containing as many as ten thousand inmates, a great many lamas also reside in their own families or roam about from place to place, while the old Shamanism has also maintained its prestige amongst most of the tribes. The wizards are still appealed to when the flocks are attacked by disease, when "fine weather"—that is, rain—is needed, when the ailing are to be healed, or the healthy stricken with a mortal illness. As indicated by the very name of Shaman, originally applied to the "Samaneans," or Buddhist monks, every possible transition is still observed between the old nature-worship and Buddhism, introduced after Jenghiz Khan's death. Since the close of the last century some Chinese exiles and colonists have also disseminated Christianity amongst the tribes.

The various Manchu, Chinese, Tibetan, and Turki influences to which the Mongols have been subjected are reflected in their customs. Thus the Manchus have imposed on them, as on the Chinese, the fashion of shaving the head, leaving nothing but the "pigtail." Monogamy also supplanted polygamy in the seventeenth century, and, as in China, the betrothals are all settled by the parents after the astrologers have announced a happy conjunction of the stars. The purchase-money is paid as amongst the Kirghiz, while a simulated abduction is gone through, as in Turkmenia. In burials the Chinese rites are observed in the case of princes and princesses, who are placed in coffins, before which the family sacrifices are offered at the prescribed times. The bodies of prelates are burnt, and their ashes covered with little mounds or cairns, whereas the poor lamas and the common folk are thrown to the wild beasts or dogs, as in Tibet. The ravens, called by the Chinese the "Sepulchres of the Mongolians," seldom quit the nomad steppes, where they fatten on human remains, and the dogs regularly follow the funeral processions beyond the camping grounds.

The Chinese immigrants are continually encroaching on the Mongolian domain, and the imperial territory of Jehol, occupying some 20,000 square miles north-east of Peking, has already been entirely settled by Chinese colonists. Jehol has taken the Chinese name of Chengte-fu, and all the neighbouring places have in the same way changed their names. Here the immigrants increased from 477,000 in 1792 to 884,000 in 1827, and they appear to be now far more numerous. The region usually called "Inner Mongolia," in contradistinction to the "Outer Mongolia" north of the Gobi, is already more than half Chinese. Formerly the Great Wall coincided roughly with the ethnical, political, and geological limits of the conterminous states. But this line has long been burst through by the Chinese traders and peasantry, who have occupied all the fertile valleys draining south-

wards. The whole region known by the name of Kow-veï, or "Beyond the Gates," is now Chinese territory, and has been recently incorporated with the two provinces of Shansi and Pechili. One of the chief inducements to settle here is the liberality shown towards the cultivators of the poppy, who, for a slight tax of less than 20s. the acre, are allowed to grow this plant freely, and are thus enabled to procure opium at a moderate price. Although the Mongolians, as a rule, keep aloof from the intruders, extensive alliances have already taken place, and the *Erlitza*, or offspring of Chinese fathers and Mongol mothers, are very numerous in some tribes. The Tsakhars especially have almost become assimilated to the Chinese in type and social habits, preferring a settled life to the freedom of their nomad kinsmen.

To insure the peaceful possession of Mongolia the Imperial Government has hitherto pursued the simple policy of dividing the race into hostile tribes, and flattering the vanity of the chiefs by allowing them to contract alliances with the imperial family. The princes, most of whom claim descent from Jenghiz Khan, bear various hereditary titles answering to those of king, duke, earl, baron. But they are bound to consult the Chinese minister in all weighty affairs, depending in all other respects on the high priest of Urga. Annual national gatherings are held under the presidency of one of the chiefs chosen by the people; but their decisions do not acquire the force of law until approved of by the Chinese Government. The Emperor has the power of deposing the ruling princes at pleasure, and in any case they are all little more than State pensioners, receiving a yearly subvention of from £30 to £800, according to their rank. Thus, instead of adding to the imperial treasury, Mongolia is actually a burden to the State, at least financially. The Mongols pay no direct tribute, but they are bound to military service, all the men between their eighteenth and sixtieth years forming part of the imperial cavalry. But the late Dungan insurrection has shown that the Mongolian army exists only on paper.

The Khalkha territory, comprising the larger half of Outer Mongolia, is divided into the four khanates of Tushetu, Tsetien, Saïnoïn, and Jesaktu; that is, of the north, east, centre, and west, and the different tribes are by usage interdicted from passing the limits of these khanates in their periodical migrations. Southern and Eastern Mongolia are in the same way divided amongst the Suniut, Göshikten, Barin, Naiman, Kortsin, Uchumsin, Uniot, Jarot, Tumet, Ahkhanar, the Durban, and the eight Tsakhar Banners. The administrative coincide with the military divisions. Each troop of one hundred and fifty men forms a squadron, six squadrons a regiment, an indefinite number of regiments a *Khoshun*, or "Banner," this last answering best to the tribal division. A certain number of Khoshuns form an *Aimak*, or section, which varies according to circumstances in size and importance. The Aimaks and Khoshuns are distributed as under:—

	Aimaks.	Khoshuns.
Khalkha domain, or North Mongolia	4	86
East Mongolia	25	51
Tsakhar domain	1	8
Ala-shan	1	3
Uliasutai { Urianhai (Uriankhs)	1	17
Uliasutai { Kobdo	11	31
Ordos territory	1	7
Total	33	172

Topography.

The large Mongolian towns are naturally concentrated in the south-eastern region "Beyond the Gates," occupied by the Chinese settlers. Nevertheless even in the north there are a few places enjoying a certain importance, centres of trade, and converging points of the caravan routes. Thus *Kobdo*, lying 4,000 feet above the sea, on the plateau of like name in the Mongolian Altaï, is the entrepôt of the Russian dealers from the Altaï mines on the Upper Irtish valley. Some distance to the east of Kobdo, but on the same hilly plateau, is the commercial town of *Uliasutai*. Both places resemble each other in their general disposition, consisting of a walled enclosure, seat of the administration, and an open quarter, the *Maïma-*

Fig. 45.—Kobdo Plateau.

Scale 1 : 2,550,000.

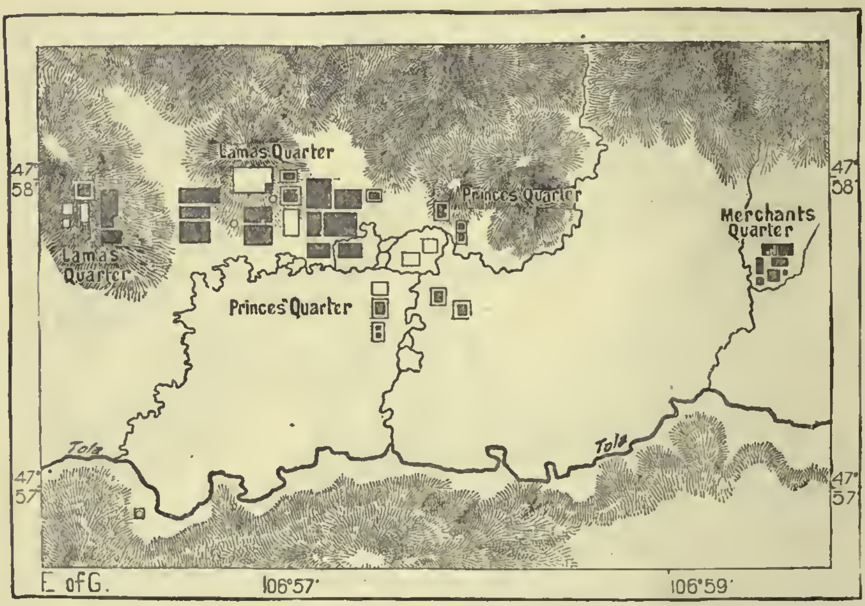
60 Miles.

chen, or trading borough, where the Chinese merchants reside, and round which are scattered the Mongol encampments. Both suffered much in 1870 from the Dungan insurrection, Kobdo having been completely sacked, while the suburbs of Uliasutai were burnt. On the same occasion Tsakhar-tsin, 120 miles south of Kobdo, was entirely destroyed. Nevertheless trade has since then rapidly revived, and Kobdo now sends over 200,000 sheep annually to Kansu. But the population increases slowly, the Chinese settled here not being allowed to bring their families with them, or to found permanent communities.

The true capital of North Mongolia is *Urga*, the Bogdo-kuren—that is, the "Great Camp"—of the Mongols. It lies on the Siberian slope in the basin of the river Tola, which drains through the Orkhon and Selenga to Lake Baikal. North

of it stretches a chain of gently sloping hills, while to the south rises the abrupt Khan-ola ridge, the genius of which is honoured with yearly sacrifices. The Kuren properly so called, which encloses one of the three palaces of the Jetson-tampa, or "Living Buddha" of Mongolia, stretches for considerably over a mile to the north of the Tola, and forms a labyrinth of courts and alleys, where probably more than 10,000 lamas have pitched their tents, or built their mud huts, beneath the shadow of the gilded domes of the temples. Here is a sort of university embracing the faculties of medicine, theology, and astrology. The Maïma-chen, or commercial quarter, lying east of the Kuren, is occupied by about 4,000 Chinese dealers. Here is the camping ground of the Russian caravans, and here is current a "Pigeon" Mongolian jargon mixed with all the dialects of China and Siberia. A

Fig. 46.—Urga.
Scale 1 : 45,000.



3,200 Yards.

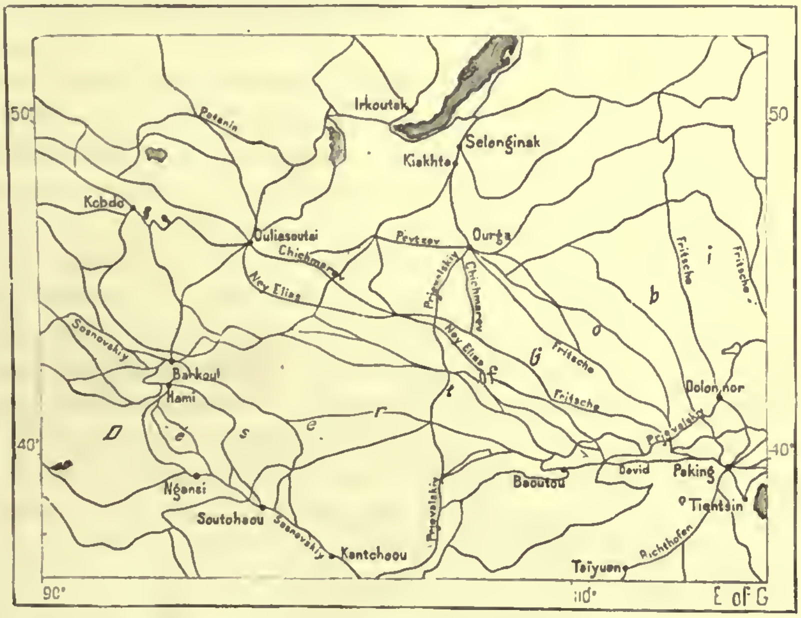
new quarter has also sprung up round the Russian consulate, established in 1861, where have been organized most of the recent scientific and commercial expeditions across Mongolia. A large triennial fair is held at Urga in September, visited by about 200,000 persons from every part of Mongolia.

All the trading routes converge on Urga, which is the chief station on the great tea highway between Kiakhta and Kalgan, at one of the gates in the Great Wall, while it is also connected with Kobdo, Uliasutai, and the towns of Kansu and Manchuria by regular postal routes. Along these tracks camps of fifteen to twenty tents are established at intervals, and placed under a postmaster, who is bound to provide travellers with night lodgings and mounts free of charge. By the treaties concluded between Russia and China in 1859-60, the St. Petersburg Government

has acquired the right to maintain at its own expense a postal service between Kiakhta and Tientsin, *viâ* Urga. In all the towns of Urga, Kalgan, Peking, and Tientsin, Russian agents look after the transit of goods, which are forwarded once a month, and the comfort of travellers, who start every ten days. The journey occupies on an average about two weeks.

Karakorum, the old capital of the vast Mongolian Empire, lies in the same river basin as Kiakhta. It might seem surprising that the imperial residence should have remained for nearly seventy years in the midst of the dreary plains of the Upper Selenga. But what the nomad conquerors most needed was a position on the open steppe, whence sudden expeditions could be directed either against China

Fig. 47.—Mongolian Highways.
Scale 1 : 30,000,000.



600 Miles.

or Western Asia. At the beginning of the fourteenth century, when the work of conquest was completed, and the empire divided into eastern and western sections, such a capital as Karakorum could serve no further purpose; hence it was soon succeeded by Peking and Samarkand. Holin, or Khorin (Kara-kuren, or "Black Camp"), is already mentioned by the Chinese chroniclers of the eighth century; but although Jenghiz Khan may have here established one of his chief encampments, it did not become the imperial capital till 1234, when Oktai Khan caused it to be enclosed. Here Longjumel and Rubruk beheld the Mongol Khan in all his glory, courted by the mighty of the earth, and surrounded by adventurers from all the Buddhist, Mohammedan, and Christian states in the Old World. Guillaume of Paris laid out his pleasure grounds, planning elegant fountains with their jets of

wine, milk, kumis, and beer falling into silver basins. Nevertheless Karakorum was never a great city. According to Marco Polo the ramparts were only 3 miles in circuit, and even most of this space was occupied with palaces and temples surrounded by extensive courts. Beyond the enclosure were two other cities, the Maïma-chen of the Chinese, and the Mohammedan bazaar. But these do not appear to have been large quarters, and Rubruk describes the whole place as inferior to St. Denis, near Paris. Hence it is not surprising that soon after its abandonment by the Khans the "Black Camp" should have vanished from the face of the earth. For a long time its very site was known only to the Khalkha nomads. D'Anville placed it on the very verge of the Gobi, near the salt lake, Kulen-ulen, while Rémusat removed it much farther north, about the sources of the Orkhon, some 240 miles south-west of Urga. And not far from this spot Paderin came upon its ruins in a plain traversed by the Orkhon. Here are still visible the remains of a crenellated rampart, five hundred paces both ways, and enclosing some crumbling walls.

In the region east of Urga, watered by the Kerulen and Khaïlar, and partly attached to the administration of Manchuria, the centres of population are mere villages, deriving some little importance from their position as capitals of aimaks and trading stations. The most frequented are *Kerulen* and *Khaïlar*, named from the rivers on which they stand. But the trade of the country is naturally concentrated in the south-eastern regions annexed to Shansi and Pechili, where the Chinese, "devourers of the Tatars," have founded several industrious towns. Amongst these are *Sarchi*, on a tributary of the Hoang-ho, and *Kweihua-cheng*, in a small basin also draining to the Hoang-ho. The latter, which is the *Kuku-khoto* of the Mongols, consists of a religious and a trading quarter, and till the end of the last century was the residence of the Mongolian Buddha, now enthroned in Urga. It is still a great centre of Buddhist learning, and according to Huc 20,000 lamas and students crowd its schools and convents. Kuku-khoto is a great cattle mart, and nearly all the dressed hides, camel's-hair cloth, and cordage forwarded to Tientsin for the London and New York markets come from this place.

Farther east are the extensive ruins of *Khara-khoto*, or "Black Town," and of *Tsagan-khoto*, or "White Town," the former a very ancient place, the latter founded at the beginning of the fourteenth century as capital of the Mongol Empire, and visited by Marco Polo, who calls it Chagan-nor. Thirty miles east of it is the Chinese village of *Sivantze*, centre of the Mongolian Catholic missions. In 1873 the Mongolian Catholics in this diocese numbered about 12,000.

No less important than Kuku-khoto is *Dolon-nor*, lying at an elevation of 4,000 feet in the south-east corner of the plateau near the extremity of the Great Khingan range. It takes its Mongol name, meaning the "Seven Lakes," from a number of meres, now choked with the sands of the desert. The Chinese call it Lama-miao, or the "Lama's Grave," from a structure here erected by the Emperor Kang-hi. Like the other cities of the plateau, it is an open town, consisting of a religious and trading quarter. Its Chinese inhabitants carry on a brisk trade at the expense of the surrounding Mongol nomads, and are also skilled artisans,

producing statues and ornaments of all sorts in iron and gilt copper for the Mongolian lamassaries and temples. The grand effigy of Buddha, over 30 feet high, in the great temple of Urga, was brought across the desert from Dolon-nor.

In the midst of the wilderness, some 24 miles north of Dolon-nor, lies *Shang-tu*, or the "Superior Court," which succeeded the "White Town" and Karakorum as residences of the Khans, and where Kublai Khan erected the marble and bamboo palaces described by Marco Polo. Its usual Mongolian name of the "Hundred and Eight Temples" is taken from its many religious edifices, formerly as numerous as the sacred volumes of the Kanjûr, all now in ruins and enclosed by a double rampart overgrown with grass and scrub. A grassy enclosure at least 5 square miles in extent, lying north-west of Shang-tu, was probably the wonderful park of which Marco Polo speaks; but the fountains, artificial streams, groves, and greenswards described by the illustrious Venetian all have vanished.

Immeasurably more extensive was the park of *Jehol*, a wooded district peopled by wild beasts, which covered a wide expanse along the hills and valleys between the Mongolian plateau and the palisade of Manchuria. Here grazed those herds of ten thousand spotless white horses offered in tribute to the Emperor Kang-hi. Jehol, or Chingte-fu, is noted for its summer palace, built in 1703 on the model of the Peking structure, and rich especially in inlaid wood artistic objects. *Paku*, or *Pingchwen-hien*, 60 miles east of Jehol, which consists of a single street nearly 5 miles long, is the centre of the silk industry in Inner Mongolia. *Hada*, or *Chifeng-hien*, is also a busy place, much frequented by dealers in furs. In this northern district there is a *gegen-suma*, or temple of a living Buddha, with a lamassary said to contain as many as 5,000 priests.

V.—CHINESE MANCHURIA.

THIS province is bounded north and east by the course of the Amur and its tributary, the Usuri; south-east by the highlands and solitudes separating it from Korea; south by the Yellow Sea; but westwards—that is, towards Mongolia—there are no natural frontiers. Here the north-eastern corner of Mongolia, west of the Great Khingan range, is assigned to Manchuria, while the forest lands and fertile tracts of the Upper Shara-muren, east of that range, now form what is called Inner Mongolia. Formerly the boundary between this section of Mongolia and South Manchuria was marked by a long line of palisades, which, however, have long disappeared. A few clumps are shown here and there, which are said to be the remains of the plantations made in the time of Kang-hi. But no plan can be detected in the disposition of the clusters occurring on either side of the old frontier in the two Manchu provinces of Mukden and Girin. Such barriers, which the Chinese, Japanese, and Koreans were formerly fond of erecting, can never have had any strategic importance; they were simply a sort of magic circle traced round the land, which was thus placed under the protection of the terminal deities.

In any case any conventional frontier between Mongolia and Manchuria can have all the less significance that both races are steadily retreating before the Chinese immigrants, who already form the majority of the population. Probably not more than one-twelfth of the inhabitants of Manchuria belong to the race whence the country takes its name.

Main Physical Features.

Manchuria is naturally divided into two distinct regions, draining one northwards through the Amur to the Sea of Okhotsk, the other southwards to the Yellow Sea. The two basins are separated by a slightly elevated ridge which runs westwards to the Mongolian plateau. But great differences prevail in the regions lying on either side of this low water-parting, Northern Manchuria forming part of the Siberian world, while South Manchuria belongs in its climate, vegetation, and inhabitants to China.

The Great Khingan presents a far more imposing appearance as seen from the banks of the Nonni than towards the west, where its base is deeply rooted in the Mongolian plateau. The conic crests of the now extinct volcanoes formerly stretching along this range stand out boldly at the head of the deep and densely wooded gorges excavated by the affluents of the Nonni. But other cones rise also above the plains watered by the Nonni, and which were formerly dotted over with now dried-up lakes. In the valley of the Udelin, a tributary of the Nemer, which joins the Nonni between Mergen and Tsitsikhar, a group of volcanic hills marks the spot where the ground was violently agitated by an earthquake in 1720, followed the next year by a fierce eruption, which lasted for over a twelvemonth. These igneous phenomena were carefully described by five imperial envoys, who visited the district at different times, so that there can be no reasonable doubt of the occurrence. From a new crater which rose to about 830 feet, with little over half a mile in circumference, four lava streams flowed down to a great distance across the plains, one of them damming up the Udelin, and converting it into an extensive lake. The group of hills contains rich sulphur beds, which, however, the Government does not allow to be worked. Several other hills in the valley are of igneous origin, but it is doubtful whether they have shown any activity in recent times. In this respect the group here described is quite unique. Such volcanic action at a distance of over 600 miles from the sea-coast is a clear proof that the saline waters of closed basins may perform the same office in nature's underground laboratories as do the marine waters in the production of volcanic eruptions.

North of the Upper Nonni valley the Great Khingan is connected by a highland region with the Daûsé-alin, or Little Khingan of the Russians. This upland tract, known by various local names, is crossed by a much-frequented route between Mergen and Aïgun. In a forest clearing at the highest point of the route a Chinese temple entertains travellers of all nations in the empire who come to worship at its shrine. The custodians of the sanctuary, banished from the "Flowery Land," are required to look after their comfort and guide them over the dangerous parts of the country. The Daûsé-alin, which appears nowhere to rise higher than 5,000

feet, is continued north-eastward across the vast semicircle formed by the Nonni and Sungari, and beyond the Amur by the Bureya range in Siberia. But the Lagar-aul, culminating point of this section, has an elevation of no more than 3,500 feet.

The true main range of Manchuria is the Shan-alin (Shanyen-alin), the Chang-peï-shan, or "Long White Mountain," of the Chinese, so named both from its dazzling limestone rocks and snowy crests; for the highest peaks about the sources of the Sungari attain elevations of 10,000 and 12,000 feet, thus rising considerably above the snow-line. The chain runs mainly north-east and south-west from the Usuri-Amur confluence to the Liaoti-shan headland on the Yellow Sea, a total distance of some 900 miles. The system is partly of volcanic origin, and in its central section an old crater is said to be filled by a lake enclosed in rocky walls over 2,600 feet high. The Manchu poets sing of the Shan-alin as the sacred home of their forefathers, and in their eyes it is the fairest land in the world, with its woodlands, sunny glades, and sparkling streams, all bathed in the bright atmosphere of heaven.

Other ridges running between and parallel with the Shan-alin and Khingan traverse the central plains, and one of them follows the valley of the Liao-ho,* on the west, skirting the west side of the Gulf of Liaotung as far as the promontory at the eastern extremity of the Great Wall. At its northern end this coast range is known as the Kwangning chain, from a city of that name lying at its foot in the neighbourhood of some extinct volcanoes. Like the Shan-alin, the Kwangning Mountains have always been regarded as amongst the tutelar deities of the country, Mount Wulin being from a remote period included amongst the nine guardians of the empire. On its highest peak the hermitage is still shown where Yenhwang, one of the most renowned Chinese princes, passed most of his days, surrounded by books and manuscripts.

River Systems—The Sungari and Liao-he.

Although differing greatly in size, the two chief Manchurian rivers resemble each other in the disposition of their respective valleys. Both flowing in opposite directions, describe semicircles of remarkable regularity, that of the Upper Nonni, or main branch of the Sungari, corresponding with that of the Shara-muren, or Upper Liao-he, while the Lower Sungari reproduces the bend of the Lower Liao-he. Between the two the Eastern Gobi plateau, covered with "yellow earth" and dotted over with closed lacustrine basins, has been gradually cut up into divergent valleys by erosive action.

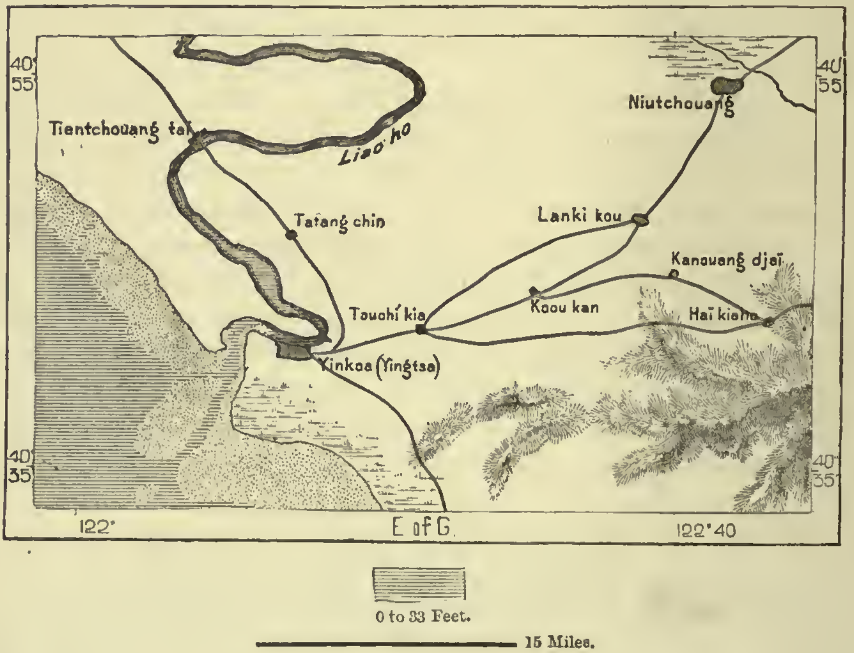
The Sungari is regarded both by the Manchus and Chinese as the main stream of the common basin which it forms with the Amur. Yet it seems to be inferior to the latter both in length and volume, except in summer, when its discharge is greater, thanks to the melting of the snows on the White Mountains. In many places it is considerably over a mile wide between its muddy banks, which are alive

* Or rather *Liao-he*, *he* being the term answering to *ho*, "river," in North China.

with myriads of swallows. During the floods the Sungari becomes an inland sea dotted with islands, the resort of countless flocks of wild geese, swans, and duck. As an historic highway across the continent it has been eclipsed by the Amur, down which the Russians reached the Pacific seaboard. But the regions watered by the Amur are little better than wildernesses compared with the smiling plains, especially of the Middle Sungari. Here also the river traffic is far more extensive, the channel being often completely blocked by the fleets of junks lying at anchor near the large towns. It is navigable by craft drawing 40 inches for at least 900 miles between the city of Girin and the ford of the Amur. The Nonni, or Si-kiang, its main upper branch, is also accessible for boats of the same size as far as Tsitsikhar, while the Mutan-he, or Khurkha River, which joins the Sungari at Sansing, is

Fig. 48.—Mouth of the Liao-he.

Scale 1 : 700,000.



largely available for inland traffic. Still all this movement by water can never have more than a local importance, for so great is the westward sweep of the main stream between Girin and Sansing that goods in transit are mostly forwarded by the shorter overland route. The steamer carrying the explorers Usoltzev and Kropotkin was the first to ascend the Sungari.

The Shara-muren, or "Yellow River," which has its source on the Mongolian plateaux, is not navigable even during the floods above the point where it enters the province of Liaotung under the name of the Liao-he. In its lower course it is accessible to vessels drawing about 10 feet, which at high water are able to cross the bar and ascend to the port of Yinkoa. The alluvia brought down by the stream have encroached to such an extent on the Gulf of Liaotung that the city of

Niuchwang, said to have formerly stood at the mouth of the river, now lies many miles inland. From century to century the ports have been shifted according as the river advanced seawards, and the navigation of the gulf is now endangered by banks and shallows, which, however, may be partly due to a slow upheaval of the land. The Liao-he valley was at all times an important historic highway. This route led the Manchus down to the Yellow Sea when they advanced to the conquest of China, and it was also followed by the Chinese military expeditions to the Sungari basin and the Korean frontier. Hence the care with which the Liao-he valley has always been guarded by the Imperial Government, as shown by the remains of extensive ramparts and fortifications in the neighbourhood of Mukden. At present the same region has acquired an exceptional political importance, as affording to Manchuria its only outlet seawards. By a strange lack of foresight, or perhaps because at the time too weak to resist Russian pressure, the Chinese Government has deprived itself of all its seaports north of Korea. Hence all the foreign trade of the Sungari basin has to be carried on either through the Lower Liao-he valley or across Russian territory. The Russian naval station, founded to cripple China on its north-eastern flank, stands on the Gulf of Peter the Great; that is, at the very spot where North Manchuria formerly enjoyed most direct access to the Japanese waters.

The surface of Manchuria is extremely varied, with its sandy wastes, its grassy steppes, rich arable lands, and dense forest tracts. The region, some 40,000 square miles in extent, stretching east of the Great Khingan from the Shara-muren to the foot of the Daûsé-alin range, now depends on Mongolia, and is often called the Eastern Gobi. Here the monsoons from the Pacific are arrested by the lofty Shan-alin highlands, which receive most of their moisture. Under the influence of these atmospheric currents, thus deprived of their humidity and mingling with the still drier north-west winds, the Eastern Gobi necessarily remains an arid region. But proceeding thence eastwards to the lands affected by the cloud-bearing sea breezes, every transition may be observed in soil and climate. Along the Sungari valley stretch vast prairies like those of the Amur, where the tall grasses, 8 to 10 feet high, are interlaced with the foliage of the bushy shrubs, and where the only tracks are those formed by wild beasts. Most of the North Manchurian mountains are green to their summits, while in the intervening valleys the solar rays are arrested by the impenetrable foliage of the oak, elm, and willow forests. From the lofty peaks the eye sweeps over a sea of verdure stretching from hill to hill, from valley to valley, beyond the horizon. The vegetation in certain parts of the Sungari basin rivals in exuberance that of the Eastern Archipelago itself. In South Manchuria, where nearly all the arable lands have been reclaimed, the forest vegetation is less dense, and most of the headlands on the Gulfs of Liaotung and Korea are bare or treeless.

Flora and Fauna.

In its flora and fauna Chinese like Russian Manchuria forms a connecting link between East Siberia and China proper. Certain species of trees and shrubs give

to the country an almost European aspect, which is enhanced by the fruit trees, cereals, vegetables, and other cultivated plants growing round the houses. But wild animals are still numerous, including the panther and the tiger, or "lord," as he is here called. The royal beast frequently attacks the inhabitants, even in the very streets of their villages, and almost more dangerous are the wolves, the packs sometimes sparing the flock and falling upon the shepherd. The wild boar, bear, fox, polecat, and wild cat are common in some districts, and in the northern forests the squirrel and sable are still trapped for their furs, which are used to adorn the head-dress of the natives. Notwithstanding the peaceful invasion of the Chinese immigrants, Manchuria continues, as of old, to be a famous hunting ground, and although the attacks of wild beasts are less dreaded than formerly, the chase is still considered as a sacred pursuit incumbent on all.

Birds, mostly of species analogous to those of West Europe, are very numerous, and multitudes, especially of singing birds, are met almost everywhere. The hamlets are visited by large flocks of ravens, which are looked upon by the Manchus as the spirits of their ancestors, and consequently supplied with daily offerings. The running waters abound to such an extent in animal life that whole communities live exclusively on a fish diet. In the Sungari the salmon are so large and plentiful that their skins form a not unbecoming article of summer attire, which is elegantly embroidered by the women. The *Yupi-tatze*, or "Fish-skin people," as the Chinese call them, are all Tunguses of the Gold tribe, like those of the Usuri River and the Russian maritime province.

Inhabitants—The Manchus.

The present Manchu race recognises the Ninchi as their ancestors. The name now applied to the whole nation was originally restricted to a single tribe occupying an upland valley in the White Mountains. Taïtsu, chief of this tribe, having subdued all his neighbours, proclaimed the perfect equality of all his subjects, to whom he extended his tribal name of Manchu. To this stroke of policy he was probably indebted for his victories over the Chinese, resulting in the complete conquest of the "Middle Kingdom" in the year 1644. This conquest, however, had the effect of transforming the Manchus themselves. With the exception of the Solons, Golds, Manegrs, Orochons, who still wander along the river banks, there are in Manchuria no longer any nomad Manchus, or Tung-tatze; that is, "Eastern Tatars," so named in opposition to the Si-tatze, or "Western Tatars." There is now nothing more than a Chinese province, and even in the Upper Nonni valley the natives have, under Chinese influence, gradually abandoned their wandering habits. They live in *fanzas*, like the immigrants from the south, and own arable lands, which they usually rent to the Chinese peasantry, with whose speech they have also become familiar.

Of all the Manchus the Solons, or Salons, have best preserved the ancient national usages. They reject Buddha, and still believe in the Shaman wizards, who practise their magic rites round about certain hallowed eminences. The Solons

MANCHU MINISTERS—CHIEFS OF BANNERS.

burn their dead, placing the ashes in leather sacks, which they attach to the branches of the trees. On the other hand, the Daûrians, although the bravest and fiercest of all the race, have become zealous Buddhists, one member at least of every family being a lama.

Owing to the mixture of races, which has produced a larger and more vigorous population than that of Central China, it has become almost impossible to distinguish the natives from the intruding Chinese. But the Manchus are distinguished above all the northern peoples for their natural politeness and courtesy towards strangers. Although descendants of the conquerors of China, they have the good taste to avoid any reference to their origin in the presence of the "Sons of Heaven," in this respect differing greatly from their kinsmen in China, the insolent mandarins, who have been corrupted by the enjoyment of power and privileges. The Solons, Daûrs, and other northern tribes, like the Siberian Tunguses of the same original stock, are brave, cheerful, good-natured, and resemble the Japanese in their aptitude for assimilating foreign ideas and adapting themselves to the altered surroundings. Hence in Manchuria religious differences have at present far more importance than those of race. The Mohammedans, who form in some districts one-third of the whole population, reside mostly in villages or in separate quarters, where they constitute quite a distinct element, holding aloof from those of other religions, although themselves of Chinese race and speech.

For military purposes the Manchus are grouped in eight banners, whence their name of Paki; that is, "Eight Flags." But the men, whose only arms till 1873 were the bow and arrow, are at present employed more frequently on hunting than on strategical expeditions. They are bound to pay a yearly tax of 2,400 deer and a certain number of sable-skins. But even into this organization the Chinese element has been largely introduced, multitudes of immigrants from Shantung having been enrolled at the time of the conquest. These military colonists are collectively known as Tsi-jen, or Ki-jen; that is, "Banner-men."

Altogether the Manchus as a distinct nationality seem to be threatened with rapid extinction. The children mostly attend the Chinese schools, where they study the four books of Confucius and the "Book of Ceremonies." Most of the native geographical names have already given place to a Chinese nomenclature, and the Manchu speech would have probably already disappeared as a cultivated language, had it not been specially studied, owing to the Manchu origin of the reigning family. This circumstance has caused it to become one of the classic languages of the empire, which candidates for high offices of State are obliged to learn, and a knowledge of this idiom has become almost indispensable to savants engaged in the study of Chinese history and literature. Since the conquest the more important Chinese works have been translated into the language of the conquerors, and these translations often throw great light on the obscurities of the original texts. Manchu is a sonorous language, easily acquired, thanks to the regularity of its inflections and syntax. Like all Tungus tongues, it consists of monosyllabic or dissyllabic roots, whose meaning is modified by agglutinated suffixes. The Ninchi, ancestors of the present Manchus, and who gave to China the Kin dynasty,

borrowed their writing system from the Chinese in the twelfth century. But the letters employed by them since the close of the sixteenth century are of Mongol origin, and are consequently derived from the Aramean system introduced by the Nestorians into Central Asia. The Emperor Kang-hi caused a Manchu lexicon to be compiled, from which all words of Chinese origin were carefully excluded. Amiot's was the first Manchu dictionary published by a European towards the end of the last century, since when several others have appeared in various European languages.

In Manchuria, as in the other outer possessions of the empire, Chinese colonisation began with convict stations and military establishments. The first settlements were founded immediately beyond the Great Wall; but at present most of the political or criminal exiles are banished to the forests and steppe lands near the Russian frontier. Tsitsikhar has become the chief place of exile for high functionaries, and for the more dangerous members of secret societies. When visited by Palladius in 1870, this place contained 3,000 exiles, all free to ply their own trades and choose their own place of residence on the condition of presenting themselves once or twice a month before the authorities. A great number of Mohammedans are also interned in North Mongolia, where they have their own mosques and schools, living altogether apart from their co-religionists who have voluntarily migrated to this region. All these new elements contribute to modify the local population, which becomes yearly more assimilated to the Chinese type. But before settling down peacefully by the side of the natives, the exiles and free immigrants often combined in formidable bands, such as that of the Hunhutze, or "Red Beards," of the Upper Usuri, who still remain hostile to all the peaceful settlers of the surrounding districts. By means of the improved weapons smuggled across the Russian frontier, they have even become a formidable power, and have built strongholds, above which flies their red flag with the inscription, "Vengeance."

Fig. 49.—Manchu Woman.

The Chinese inhabitants of Liaotung take the collective name of Mandzi, whatever be their origin. They come chiefly from Shansi, Shantung, and Pechili; but in North-west Manchuria there are many descendants of the Yunnan exiles banished to this region by the Emperor Kang-hi in the seventeenth century. Still the immigrants from Shantung are the most numerous. They supply the agricultural

and settled elements, and their dialect is now current throughout the whole of Manchuria. Those from Shansi are chiefly itinerant dealers, hawkers, hucksters, money-lenders, and bankers. They betray a remarkable talent for acquiring languages, in their dealings with a stranger always conversing in his language, unless it happens to be Manchu. This they affect greatly to despise, and have the less need to learn it that Chinese is now everywhere understood by the natives. These Shansi traders are gradually acquiring all the substance of the land. In their flat-roofed Manchu houses the place of honour is taken by Laoyeh and Tsaïkin, the gods of wealth, whom they worship most sedulously.

Thanks to its fertility and temperate climate, South Manchuria yields a great variety of agricultural produce. The Chinese breed swine and cultivate wheat, barley, maize, millet, besides the "yellow pea" (*Soya hispida*), from which they extract a sweet oil used as a condiment, exporting the refuse to China as manure. Notwithstanding the severe winters, the hot summers enable them to grow a species of indigo, besides cotton and the vine, carefully protecting the roots with straw and earth during the cold season. The mulberry and oak are planted for the sake of the silkworm, of which there are several varieties, not only yielding the precious fibre, but also supplying the table with its greatest delicacy. As in Mongolia, the imperial edicts against opium are a dead letter, and the bright bloom of the poppy is everywhere intermingled with the other crops. Lastly, the Manchu tobacco, especially that grown in the Girin district, is famous throughout the empire. The practice of tobacco-smoking spread originally from Manchuria to Japan, and thence to China about the time of the conquest. But the Manchus still remain the greatest smokers in the empire. Some Chinese peasants in the Usuri valley also cultivate ginseng, which the Manchus call *orotha*, or "first of plants," and which fetches its weight in gold in China. Its cultivation was formerly reserved as a monopoly by the Manchus, and the line of willow palisades is said to have been originally erected in order to prevent the Mandzi from penetrating into the forests abounding in ginseng. But the trade has now passed altogether into the hands of the Mandzi, who either cultivate or procure it in the wild state. The latter is much preferred to the garden produce.

Till recently the only important local industries were the preparation of vegetable oils, and of brandy distilled from sorgho. The Manchus of both sexes drink this spirit, "to the forgetfulness of good and evil," as they express it. Thousands are now also occupied in the gold mines, and according to the official returns, over 30,000 were employed about the middle of this century at the Wanlagu washings, on the Upper Suifun. But the coal and iron mines of South Manchuria promise to become a still more productive source of national wealth. Thanks to these varied resources, Liaotung has already become much richer than many provinces in the interior of the empire.

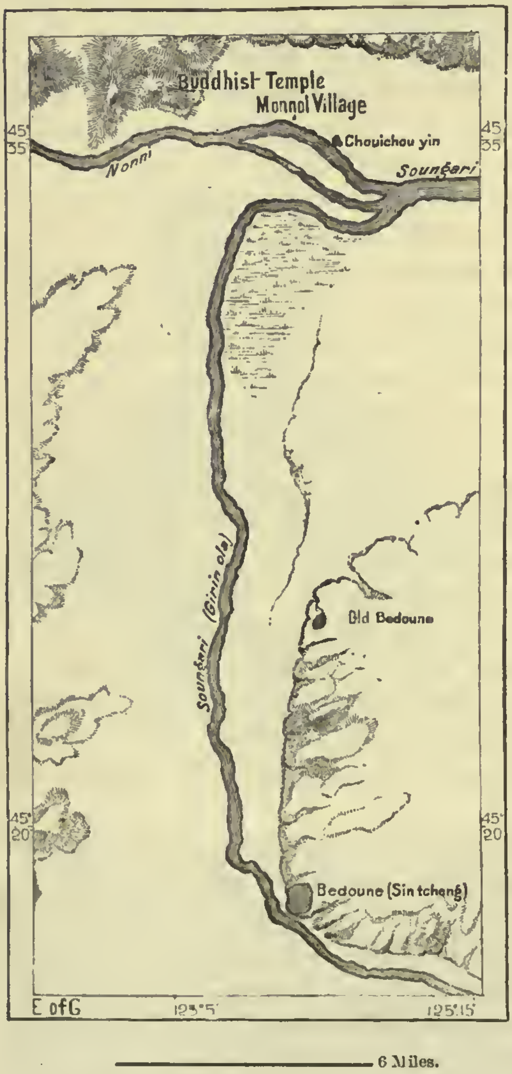
Topography.

The only Manchurian town on the right bank of the Amur is *Aïgun* (Aïkhun), which is by far the most populous in the whole valley of the Helun-kiang, or

"River of the Black Dragon," as the Chinese call the Amur, probably from the dark colour of its waters. Aïgun stretches, with its suburbs and gardens, for over 5 miles along the river, and villages follow in quick succession all the way to Sakhalin, some 24 miles north of Aïgun, over against the Russian town of Blagovieshchensk. The Chinese city is not only the capital of all the Amur district, but is also regarded as their chief town by all the Daûrs, Manchus, and Chinese of the Siberian side, who carefully avoid their Russian masters, and still continue to pay their taxes to the Aïgun authorities. But as a military station this place is too far removed from the heart of the empire to be able to resist the Russians, should they attack it. Its enclosure consists of a simple palisade and the remains of an avenue, while its communications with the rest of the country are obstructed by the steep Khinan-alin range. All its relations with the empire are carried on through *Mergen*, which lies in a wooded and fertile district in the Upper Nonni basin. When visited in 1870 by Palladius, this place had not yet been reached by the tide of Chinese immigration, which had scarcely got much beyond *Tsitsikhar*, or *Pukuheh*, capital of North Manchuria, and centre of administration for all the Butkhans or Manchus still in the tribal state. These natives assemble here every year in the month of June to pay their tribute of 5,500 sable-skins, and on this occasion a great fair is held, which attracts the Chinese dealers from all quarters.

Fig. 50.—Confluence of the Nonni and Sungari.

Scale 1 : 300,000.



The Upper Sungari valley, lying farther south and nearer to China, is much more densely peopled than the province of Tsitsikhar, and *Girin*, its capital, has already become a large city. It occupies an admirable position in the midst of an amphitheatre of wooded hills on the right bank of the Sungari, which is here about 1,000 feet wide. The place is called Chuan-chang, or "Boat-yard," by the Chinese, from the number of river craft

which are here built for the navigation of the Sungari. The streets are entirely paved with square wooden blocks or planks, and piles of lumber obstruct the traffic ashore, while the stream is covered with rafts. The neighbouring gold mines are the scene of constant violence and bloodshed, which the Chinese authorities endeavour to suppress with atrocious cruelty. When Palladius visited Girin he had to pass through a line of stakes, each surmounted by a gory human head.

In the marshy and fever-stricken plains lying about the Nonni and Sungari confluence the only place of any size is *Beduneh* (Petuna), or Sincheng, which has succeeded another town of the same name lying nearer to the junction. Here converge the main routes of the two valleys, and a considerable trade is done, especially with *Kwangcheng-tze*, or *Siangtu*; that is, "Great Capital." This town lies farther south on the great highway to China, and is the natural mart of all the nomad Mongol tribes of the Eastern Gobi steppes. But in this district the main route leads directly north towards the Sungari. Along this line of busy traffic lie the towns of *Kuyu-shu*, *Lalin*, and *Ashe-ho* (Asher-ho). Opposite the confluence the main stream is joined by the Khulan, and on a bluff commanding this triple junction stands the town of *Khulan-chen*.

The most northern Chinese city in the Sungari basin is *Sansing*, which lies on the right bank between the two rivers, Khurkha (Mutan) and Khung-ho, and facing the mouth of a third. Sansing is the old Islan-hala of the Manchus—that is, the city of the "Three Families"—and its admirable situation at the junction of four river valleys could not fail, in a more favourable climate, to raise it to a commercial centre of the first rank. But Sansing is exposed to the full fury of the northern blasts, while in summer it is drenched by the heavy rains from the monsoons, which change the river banks into malarious swamps, flood the cultivated tracts, and drive the people to take refuge in the upland valleys. Hence Sansing has remained little more than a mart for the peltries brought hither by the Manchu hunting tribes. Higher up the Khurkha valley is peopled by numerous colonists, and here was founded the important town of *Ninguta*, in the midst of the fertile valleys watered by the streams from the White Mountains. Ninguta occupies the most convenient site in Chinese Manchuria for the Russian and Japanese trade; for the routes converge here, which run over easy passes across the Shan-alin range east and north-east to the valleys of the Suifun and Tumen Rivers. Thus the commodious ports on the Gulf of Peter the Great are the natural outlets of the Ninguta district. But since the Russian occupation of the maritime province the fiscal measures of its new masters have resulted in the depopulation of the border-lands.

The main highway from Girin to Mukden, skirting the foot of the volcanic Taku-shan range, traverses several large places, such as *Kali-chung*, *Kaïyuen*, and *Ti'ling*, or "Iron Mount," so named from a range of hills abounding in ores, thanks to which Ti'ling has become the "Birmingham and Sheffield of Manchuria."

In the southern or Liao-he basin the chief place is *Mukden*, the Shinyang or Fungtien of the Chinese, which is the present capital of the three Manchu provinces. It lies in the midst of extremely fertile but treeless plains, watered by an affluent of the Liao-he from the east, and it is regarded as a holy city, because

it was the former residence of the ancestors of the reigning imperial family. It is surrounded by an outer earthen rampart 11 miles in circuit, within which is a second enclosure, 3 miles round, built of bricks and flanked with towers. The streets are much cleaner than those of Peking, and like them lined with shops and crowded with busy throngs all day long. Northwards stretches the extensive and

Fig. 51.—Lower Tumen Valley and Possiet Bay.
Scale 1 : 700,000.

industrious suburb of *Pekuan*, or "Northern Barrier," where the gold from Kôrea is refined. As an administrative centre, Mukden enjoys great privileges, holding, in some respects, the same rank as the imperial capital itself. On the west stands a rich Buddhist temple, built in honour of the present dynasty, and on the opposite side, 3 miles from the outer walls, is situated the sacred enclosure containing the

tombs of the ancestors of the imperial family, access to which is forbidden under pain of death. Till 1804 the reigning emperors never failed to make a pilgrimage to the sacred city of their dynasty; but since then the "holy face" (the portrait of the Emperor) is sent every ten years to Mukden with much pomp and ceremony.

South of Mukden the seaward route traverses a thickly peopled district, in which large towns such as *Liaoyang, Haïchung, Niuchwang,* and *Tienchwang* follow in quick succession. The two last mentioned have been succeeded as ports of the Liao-he River by *Yinkoa,* or *Yingtze,* which lies 26 miles south-west of Niuchwang. Although ice-bound for four or five months in the year, the trade of this place has rapidly increased since it has been made a treaty port. It exports chiefly cotton, raw silk, hemp, pea oil, and coal to a total yearly value of about £2,250,000.

The whole of South Manchuria abounds in coal, and the mines in the hills south-east of Mukden already supply the towns and metal works of the surrounding districts. It is also used by the steamers plying in the Yellow Sea, and is said to be superior to that of Japan, and equal to the best Cardiff.

On the west coast of the peninsula projecting seawards between the Gulfs of Liaotung and Korea are several towns and ports, of which *Kaïchew* and *Kinchew* are the most important. On the side facing the Yellow Sea the chief place is *Tayang-ho,* at the mouth of the river of like name on the Korean frontier. This river is navigable by light craft for 12 miles to the busy town of *Taku-shan,* which is the outlet for the trade both of *Siuyen,* an old Manchu capital famous for its marble quarries, and of *Fungwang-shan,* the frontier bulwark towards Korea. In the latter place the mandarins of the two states meet to exchange the presents sent by their respective sovereigns.

West of the Liao-he the narrow strip of land between the west frontier and the coast contains several trading-places and other towns, of which the most important are *Singmintön,* on the route from Mukden to Peking; *Faku-min,* on the East Gobi frontier; *Kwangning,* at the foot of the mountains to which it has given its name; *Kingchew-fu,* 12 miles from the north-west corner of the Gulf of Liaotung, important as a great outlet for the produce of Manchuria towards China; *Ningyuen,* 42 miles farther south; lastly, *Shanghai-kwan,* the largest in this region, on the Chinese frontier at the eastern extremity of the Great Wall, consisting of three distinct quarters separated from each other by walls and gates. The inner town, occupied with trade, is the most populous; the eastern comprises the military and administrative departments; while Ninghai, lying on the west side, is occupied chiefly by Chinese immigrants. All three are enclosed in a common half-decayed cincture connected southwards with the Great Wall, and stretching some 3 miles along the coast, where it is commanded by a citadel. A little temple near a breach in the wall commemorates a legend which illustrates the sufferings of the unfortunate wretches engaged by the Emperor Tsin on the construction of these ramparts. A woman, finding the body of her husband amongst those who had perished of their hardships, dashed her head against the wall, which immediately fell, burying her by the side of her partner in sorrows. "This woman is venerated," says an inscription on the temple, "but the Emperor Tsin is for ever execrated."

CHAPTER V.

CHINA.

General Survey.

THE term "China," applied by Europeans to this region, is unknown to the natives, and the *Tsin* dynasty, whence probably the Hindu form *China*, has for nearly fifteen hundred years ceased to rule over the plains of the Hoang-ho and Yang-tze-kiang. Nor do they recognise the epithet "Celestial," attributed to their empire, the expression *Tien-hia*, or "Under the Heavens," being applied by their poets to the whole "sublunary" world in general as well as to China itself. In ordinary language the usual expression is Chung-kwó; that is, "Middle Kingdom," or "Central Empire," in reference either to the preponderance gradually acquired by the central plains over the surrounding states, or to the idea common to so many peoples, that China was really the centre of the world. To the usual four points of the compass the Chinese add a fifth—the centre; that is, China. Since the Manchu conquest the official designation is Tatsing-kwó; that is, the "Great and Pure Empire," or, perhaps, Ta Tsing-kwó, the "Empire of the Tsing, or Pure." Other expressions are Se-hai, or "Four Seas"—that is, the Universe; Nwi-ti, or "Inner Land;" Shipa-shang, or "Eighteen Provinces;" Hoa-kwó, or "Flowery Land," a poetic form synonymous with "Land of Culture and Courtesy." The people themselves are the "Children of Han," or the "Men of Tsang," in allusion to two famous dynasties. They also call themselves "Limin," an enigmatical term commonly rendered "Black-haired Race." But there is no precise natural term of general acceptance either for the country or the people, and the same is largely true of the mountains, rivers, provinces, and inhabited districts, the names of which are mere epithets, descriptive, historical, military, or poetical, changing with every dynasty, or replaced by other epithets of an equally vague character.

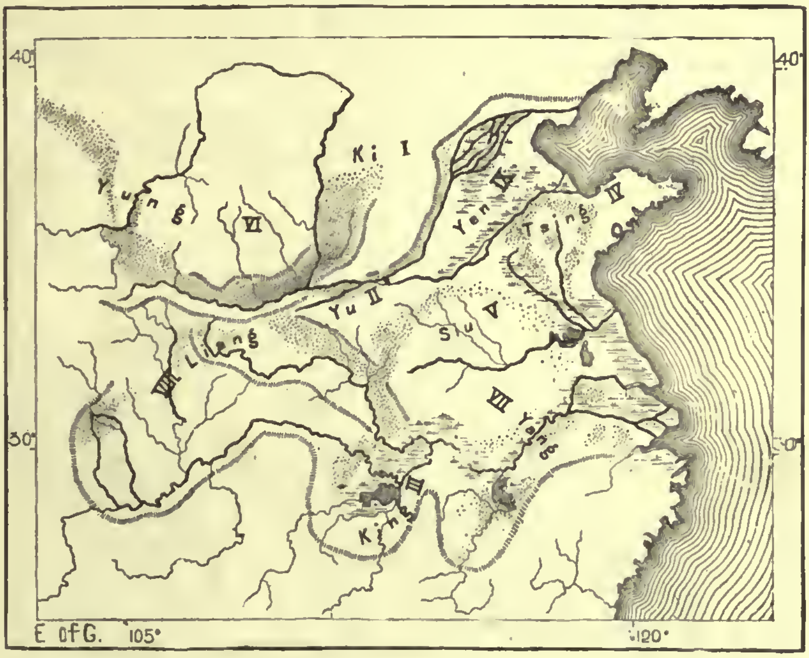
The natural limits of China proper are sufficiently well defined. On the west the eastern extension of the Tibetan plateau, here separated by deep river valleys into divergent ranges, forms a clear frontier between the Chinese and the half-savage Lolo, Sifan, and other hill tribes. Northwards the Great Wall indicates throughout most of its course the parting-line between the arable lands and the

Gobi
Shamo
Tsing-hae or Koko-nor
Koko-nor
TIBET
ASSAM
Brahmapootra
BURMAH
Amarapoora
Ava
SIAM
ANAM
Tong-quin
Gulf of Tong-quin
SZE-CHOUEN
YUNNAN
KWEI-CHOO
KWANG-SE
HOO
SHA
Great Wall
Sou-chow
Ling-chow
Chang-wei
Si-ning
Chong-king
Ching-too
Kia-ting
Ma-hou
Ning-yuan
Kwei-yang
Tong-chuen
Kang-hung
Kesho
Mao-mu
Kara Nor
Tengri Nor
Nan-chang
Kien-chow
Yen-yang
Ching-choo
Tamdo
Kakhyo
Mogaung
Santa
Bamo
Kin-chow
Tengyueh-chow
Sou-chow
Hing-yuen
Kiang-tung
Sai-chow
Yuen-kiang
Lin-ngan
Kai-hoa
Se-ching
Chin-ngan
Nan-ning
Lien-chow
Kao-chow
Lui-chow
Kiung-chow
Tan-chow
Lo-hoa
Lai-chow
Gwalong
Kiang-toon
Mekon or Cambodia
Irawady
Kyen-dwen
Salwen
Longitude

CHINA
BY W HUGHES
English Miles
LEAO TONG
Gulf of Leao tong
Gulf of Corea
Gulf of Pe-che-lee
PE-CHE-LEE
SHAN-TUNG
Hwang-hai
or
Yellow Sea
Tung-hai
or
East Sea
Japan Sea
Strait of Corea
Niphon
Kiu-siu
Nagasaki
Quelpaert
LOO CHOO or RIU KIU
CHE-KIANG
NGAN HWEI
KIANG-SI
FO-KIEN
Formosa, or Tai wan
Channel of Formosa
Tropic of Cancer
Bashee I.
Luzon
CHINA SEA
CANTON
Ningpo
Foo-chow
Amoy
Chusan
Providence Reef
Sannan (Mapco-sima I.)
Port Melville
Napakiang (Nafa)

steppe or desert. East and south-eastwards the Pacific Ocean washes the seaboard, which develops a semicircular coast-line over 2,000 miles in extent. Lastly, on the south mountain ranges, plateaux, marshy tracts, difficult river gorges, separate China from the Trans-Gangetic peninsula. Here, however, the frontier-line is often purely conventional, and in this direction China merges more gradually than elsewhere with the border-lands. It occupies in the extreme east of the continent a space of almost circular form, with one semicircle traced on the mainland, while the

Fig. 52.—The Nine Provinces according to the Yukung.
Scale 1 : 22,000,000.



Mountains mentioned in the Yukung.
Rivers " "
Marshes, tracts subject to inundations.
Range and probable density of the Chinese population.
C Capital of the Empire under Shun.
(The figures I. to IX. represent the decreasing fertility of the land.)
600 Miles.

other is formed by the Pacific seaboard. Thus circumscribed, China represents about one-half of the empire, and comprises the eleventh part of the whole mainland, with a population estimated at about 400,000,000.

Progress of Discovery.

For thousands of years the Chinese have been making observations on the form and relief of the land, at least in its general features. The Shuking, or

"Book of Annals," relates how the Emperor Yu, twenty-two centuries before the vulgar era, had a census taken, and had maps of the nine provinces engraved on nine bronze vases. These vases, having been deposited in a temple, were supposed to secure the crown to their possessor, and in the middle of the third century B.C. an emperor had them thrown into the river to prevent them from falling into the hands of his enemies. The series of works executed under the direction of Yu constitutes probably the oldest topographical survey in the world. Mountains and headlands, lakes and rivers, quality and products of the soil, are all indicated in this description of the nine provinces. Legions of commentators, native and foreign, have studied this geography of China, and have identified its names; nor can there be any doubt that at this remote epoch the land was already known even in detail from the seaboard to the Gobi desert. It would seem to have been even

Fig. 53.—China according to the Native Geographers.

better known than in subsequent epochs, and most of the later commentaries had the effect rather of obscuring the original text of the Yukung, which was not thoroughly understood till subjected to the critical examination of recent European sinologues.

Under the Han dynasty, in the second century of the vulgar era, there existed a veritable topographic office, the so-called *Chifang-shi*, intrusted with the survey of the land and the preparation of maps. Since that time geographical studies have never been neglected, but in all the native works there is an utter lack of the sense of proportion analogous to that betrayed in their paintings. An isolated peak, a range of mountains, and a whole orographic system all assume in their descriptions an equal importance, and are designated by the same name. A brook, river, lake, or sea is traced on the maps with equally bold touches of the pencil, while rivers, highways, towns, mountains, and coast-lines are all confused in the

general tableau. The measurements lack precision, or have merely a general value, and the *li*, or unit of distances, changes according to time and place. The li is usually estimated at one-third of a mile, but there are great discrepancies, and 185, 192, 200, and 250 are variously reckoned to the degree.

The itineraries of the first European explorers are often traced in a somewhat vague manner, and of these pioneers of discovery very few have left a name in history. Marco Polo, who spent seventeen years in the country, was followed by other traders or missionaries, such as Pegolotti, Montecorvino, Odorico di Pordenone,

Fig. 54.—Kiang-su, according to Martini.

Marignolli. In his description of the splendours of Cansai, the modern Hangchew-fu, Odorico appeals to the testimony of many Venetians, who had also visited the place. But exploration in the strict sense of the term, together with the direction or improvement of the native maps, did not begin till the time of the missionaries. In the seventeenth century Martino Martini, of Trent, reproduced the Chinese maps, modified by himself from his own observations, and accompanied by critical documents. At the end of the same century the French missionaries, having become the official astronomers and mathematicians of the empire while retaining their relations with the geographers of the West, were able to explore the country

under favourable conditions, carefully preparing their itineraries and astronomically determining several places on their maps. In 1688-9 Gerbillon was even requested to co-operate in determining the new frontier-line between Russia and the Chinese Empire, and until quite recently his memoirs remained our chief source of knowledge for some of the northern regions. Later on Bouvet, Regis, and Jartoux received orders from Kang-hi to construct the imperial map of China, which is still the standard to which modern explorers have to refer their observations. This general fusion of the old Chinese maps was completed in ten years, and by its means D'Anville was enabled to prepare the atlas, of which all subsequent maps of China are merely more or less faithful reproductions.

At the same time recent scientific research in various parts of the empire has supplied copious materials for a more accurate map, especially in respect of the position of the towns, the river systems, and the relief of the land. Most of the seaboard, estuaries, islands, and sand-banks have already been carefully surveyed by European and American hydrographers. Blakiston, amongst others, has traced the meanderings of the Yang-tze, thus supplying a solid basis across the empire for future chartographic work. Fritsche, Sosnovsky, and above all Richthofen, have connected their itineraries with those of Siberia and Central Asia by a series of valuable astronomic observations, and the native geographers have now begun to take part in these labours. Some of the maps recently published by them show that fancy and mysticism have already given place to a more careful study of nature.

Physical Features—Climate.

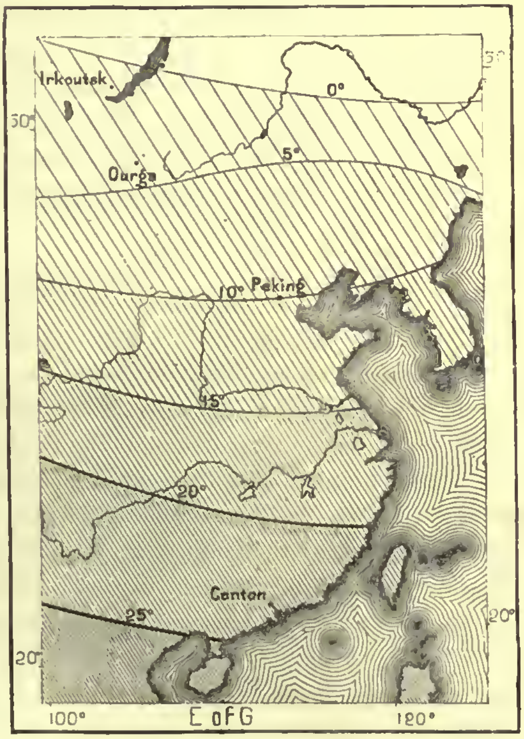
Within its natural limits China proper enjoys a fair degree of geographic unity. The mountain systems run mainly in the direction from west to east, thus everywhere opening easy routes from the coast inland. The plains on either side of the main ranges are also connected by means of frequent gaps and easy passes, so that the few isolated plateaux are nowhere extensive enough to prevent the fusion of the surrounding populations. The national unity has been promoted in a special manner by the disposition of the two great river systems. Both the Yellow and Blue Rivers flow mainly parallel with the equator, and although their middle courses are widely deflected north and south, the intervening uplands are almost everywhere crossed by accessible routes. The first serious obstacle is presented by the rugged upland region between the Yang-tze and its great tributary, the Min; but even here more than one practicable track has been followed from the remotest times. A still more easy approach is offered by the valley of the Kialing, while farther east the Han-kiang flows through a broad depression obliquely connecting the two streams. Lower down their alluvial plains are merged in one vast lowland region, where the shifting course of the Hoang-ho has at different epochs reached an estuary communicating through two side branches with the Hoaï and the Yang-tze. The two great fluvial basins, comprising in Tibet, Kuku-nor, Mongolia, and China an area of over 1,360,000 square miles, may even be regarded as forming a common hydrographic system. The section of this vast area lying south of the

Mongolian steppes and east of the Tibetan plateaux has naturally become the domain of a united agricultural nation.

The southern lands south of the two great twin rivers are less solidly united with the rest of the empire. Here the mountains are more elevated than in the heart of the country, and are grouped in a greater number of independent ridges, running, not west and east, but mainly south-west and north-east. Nor can the Si-kiang, the chief river of this region, be compared with the two main streams of China, either in extent or in the facilities afforded by its lateral valleys for free inland communication. Hence this portion of the empire constitutes a distinct territory, more nearly allied physically and ethnically with Further India than with China proper. The Southern Chinese differ widely from those of the central and northern regions, both in speech and customs, and have within the historic period frequently formed distinct political systems.

Fig. 55.—Isothermals of China.

Scale 1 : 45,000,000.



600 Miles.

In the eastern hemisphere China corresponds with West Europe in its climate, products, and historic development. The mass of the land doubtless lies much nearer to the equator, for its northern frontier at the eastern extrêmity of the Great Wall is crossed by the 40th parallel, like Mount Athos, Minorca, and South Spain, while the whole coast south of the Canton estuary lies within the tropics. But the isothermal lines, so to say, deflect China proper northwards, imparting to it a relatively cold climate. Thus the mean temperature of South England and North France, about 50° Fahr., answers to that of Peking and the Pei-ho valley. Shanghai corresponds in the same way with Marseilles and Genoa, while the isothermal of 68° Fahr. intersects the South Chinese seaboard, Andalusia, and the south of Portugal. The extremes, however, are greater in China, which in this respect is thus at once a more northern and a more southern region than temperate Europe. In the Old as in the New World the climate of the east is severer than that of the west coast, a fact due to the disposition of the oceanic basins, and to the rotation of the earth from west to east. In Europe the conflicting atmospheric currents are those of the pole and the tropical trade winds, which are deflected by the earth's motion,

the former to the north-east, the latter to the south-west. On the East Asiatic seaboard the vast basin of the Pacific diverts these currents from their normal direction, so that the polar winds passing over Siberia deviate to the south and south-east in order to replace the warmer atmosphere diffused from the tropical waters towards the pole. On the other hand, the marine breezes are attracted in summer by the "Yellow Lands" of the Hoang-ho and the barren steppes and sands of Mongolia, the Pacific trade winds being thus often deflected towards the interior of China. Farther south the opposite currents from the Bay of Bengal and the Pacific produce an unstable equilibrium, often succeeded by those terrific typhoons (*ta-fung*, or "Great Winds"), so dreaded by mariners in those waters.

Thanks to the regular south-west winds and the marine monsoons, China receives a larger average quantity of moisture than West Europe. Along the coast the mean rainfall is rather more than 40 inches, and the greater regularity of the seasons has also largely contributed to the early development of agriculture in the Yang-tze and Hoang-ho basins. Nevertheless this advantage over Europe is counterbalanced by extensive inundations, and occasionally by long periods of drought, followed inevitably by widespread famine.

Flora and Fauna.

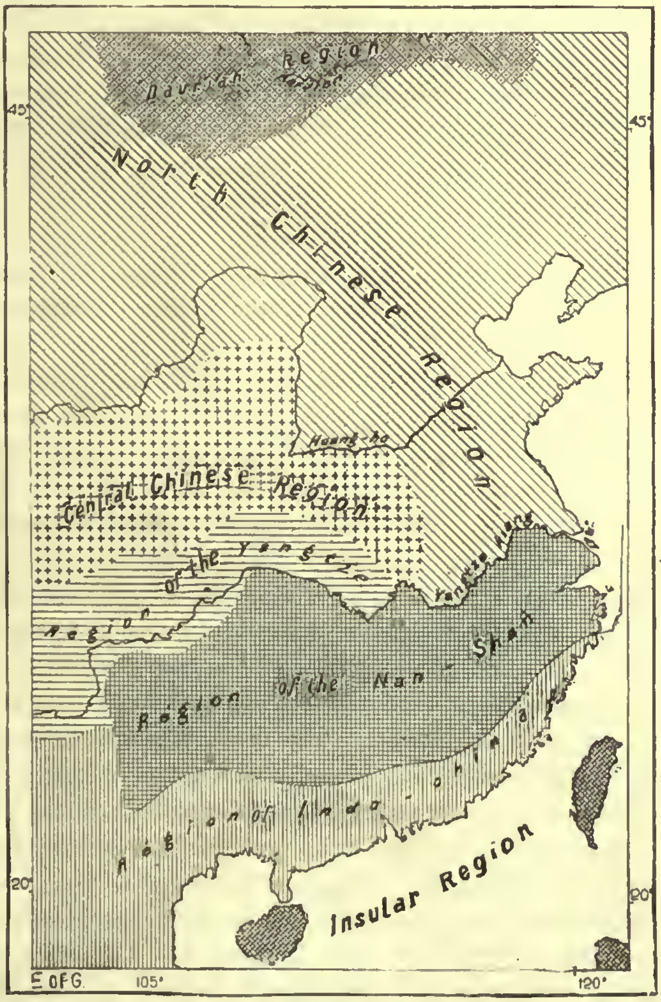
Thanks to its normally temperate, and in the south almost tropical climate, China possesses an extremely rich flora, in which both Indian and European types are mingled together. In some intermediate southern tracts the same lands will grow the sugar-cane and potato, while the oak and bamboo flourish side by side in the neighbouring thickets. Proceeding northwards, there is a gradual transition from the Indian to the Manchurian flora. The spread of tropical varieties has been stimulated by the inclination of numerous valleys towards the Malay peninsula. Hence a large number of Indian plants are found as far north as Canton, and even Amoy, under the 24th parallel. Of these one of the most valuable is the indispensable bamboo, which is used for building purposes, and even for food, the young sprouts being regarded as one of the choice delicacies of the Chinese cuisine.

A great contrast between the European and Chinese floras is presented by their respective forest species, which are more varied and of a more tropical character in China, although the woodlands have here largely disappeared. Even in the Peking district, and throughout the northern provinces, where for a portion of the year the climate is almost Siberian, fully one-fifth of all the plants belong to the arborescent orders. The evergreens especially are very numerous, the resinous species presenting more varied types even than those of North America itself. The laurel is a characteristic feature of the Chinese landscape, and the sycamore, ash, linden, maple, and many other forest trees belong to the same genera as those of Europe. But China is especially noted for the great number and beauty of its flowering shrubs. From the "Flowery Land" come the camellia, azalea, jasmine,

and so many other lovely plants, which form the pride of our gardens and conservatories.

Notwithstanding the labours of many zealous naturalists, the fauna of China is still far from being thoroughly known, and every successive explorer here discovers new species. Many have also probably disappeared before the encroachments of

Fig. 56.—Range of the Chinese Fauna.
Scale 1 : 20,000,000.



300 Miles.

agriculture during the historic period. Thus the old accounts speak of the rhinoceros, elephant, and tapir as still surviving in China proper; nor is it now possible to say when they became extinct. But what remains is nevertheless far more varied than that of Europe, although wild animals have become very rare in the cultivated districts. As with the flora, there is an insensible transition from the Indian to the Manchurian fauna. Monkeys, which may be regarded as here

representing the tropical world, occur in small numbers in the thickets and rocky caverns as far north as the neighbourhood of Peking. At least nine simian species are found in China and Tibet, and as many as a dozen of the feline order, including the tiger and panther, infest the less populous districts of China proper. Of two hundred mammalians not more than ten are common to China and Europe, and even these present certain differences sufficient to constitute, according to some naturalists, distinct varieties. Relatively more numerous are the European birds, of which as many as 146 species in a total of 764 are fonnd in China, which has also about 60 in common with America. The numerous Chinese varieties of the lizard, snake, salamander, and turtle are altogether unrepresented in Europe, and, with the single exception of the eel, all the fresh-water fish differ from those of the West, betraying, on the whole, a more general resemblance to those of North America.

Inhabitants—The Chinese Race.

The Chinese people constitute one of the most distinct varieties of mankind. They are commonly regarded as a branch of the so-called Mongol type, although presenting a marked contrast to the nomad tribes of this name. The very expression Mongol, to which a more precise meaning was formerly assigned, denotes at present little more than the relationship of contact or proximity between the East Asiatic nations. The Chinese are evidently a very mixed race, presenting a great variety of types in the vast region stretching from Canton to the Great Wall, from the Pacific seaboard to Tibet. But of these types the Mongol is perhaps the least common amongst the "Children of Han." The average Chinaman, considered as belonging to this assumed Mongolic type, is represented as of low stature, somewhat symmetrical form, although occasionally inclined to obesity, especially in the north, with ronnd face, high cheek bones, broad flat features, small nose, small oblique and black eyes, coarse black hair, scant beard, yellow, brown, or even light complexion, according to the climate. The head is mostly long or sub-dolichocephalous, whereas that of the Mongolians is rather round or brachycephalous.

The old Chinese writings, including those of Confucius, already speak of the contrasts presented by the physical traits and moral character of the different peoples in the empire. Those of the north are spoken of as brave, the southerners as endowed with wisdom, the men of the east as kind and friendly, those of the west as more upright and honest. But however this be, it is certain that the natives of the various provinces present the sharpest contrasts with each other. The true national link is their common culture rather than any common racial type. For the aboriginal elements have been diversely modified by mixture with Tibetans, Tatars, Mongols, Manchus, Burmese, Shans, Malays, besides the Si-fan, Miaotze, and other still half-savage hill tribes, which have no collective ethnical designation. For thousands of years the agricultural populations of diverse origin settled in the Hoang-ho and Yang-tze-kiang basins have had the same historic destinies, speak dialects of the same language, and have become one nation. Many differences between the primitive stocks have been gradually effaced; but the differences are

still conspicuous in some of the southern provinces, notably in Fokien and Kwangtung, the natives of which seem to form two races not yet thoroughly fused.

But whence came that primitive stock, which, blending with diverse elements, resulted in the great Chinese nation? The people formerly called themselves the "Hundred Families," and pointed to the north-west beyond the Hoang-ho as the region whence the migrating groups descended to the fluvial plains, where they either expelled or subdued and absorbed the less civilised aborigines. Nor is it at all unlikely that the vast and fertile region of the "Yellow Lands," lying mainly north of the Hoang-ho, played a leading part in the early history of the Chinese people. Here was room for millions of agriculturists, who may have gradually migrated eastwards according as the lacustrine basins dried up and the sands of the desert encroached upon the cultivated plains of Central Asia, where the forefathers of the Chinese had dwelt in close proximity with those of the Turki, Hindu, and Iranian races. Every river valley became a highway of migration, and consequently of dispersion for the peoples of higher culture, and the arts, manners, and speech of the early settlers may have thus been gradually diffused from north to south throughout the empire.

Like those of Europe, the peoples of China have had their stone age, and the collections of the extreme East include implements and objects of all kinds similar to those of the palæolithic and neolithic periods in the West. Sladen has brought from Yunnan a number of jade hatchets, which, as in Europe, were formerly supposed to be "thunder stones," bolts hurled to the earth by the god of thunder. The Chinese have divided the prehistoric ages into three periods corresponding with those of the Western archæologists. "Fu-hi," they say, "made weapons of wood; Thin-ming, of stone; Shi-yu, of metal." But after the introduction of iron implements the stone arrow-heads were still credited with a symbolic virtue, and in the hand of the sovereign regarded as emblems of royalty. Down to the twelfth century B.C. the Chinese emperors received in tribute stone arrow-heads, and long after that time these arms continued in use amongst the wild tribes of the western highlands. Amongst the Chinese ideographic characters there is still a particular sign to indicate a stone used in manufacturing arrow or dart heads.

The Chinese nation has thus passed through successive stages of progress answering to those of other civilised peoples, only in China the early evolutions were brought sooner to a close than elsewhere. The European races were still rude barbarians when the Chinese were writing their history some four thousand years ago. In spite of all their shortcomings, the Chinese annals constitute the most authentic and complete historical record possessed by mankind. Here are faithfully registered the political vicissitudes of the land, as well as the natural phenomena and astronomic observations by means of which the dates of historic events may be tested or determined.

The Chinese Language.

But notwithstanding their ancient culture, the Chinese are distinguished amongst all civilised peoples for the still primitive form of their speech. In this

respect they have remained in a stage of development answering amongst the Aryans and Semites to the prehistoric epoch. Their dialects contain nothing but a small number of monosyllabic roots expressing merely general ideas, and conveying a definite notion only in the sentence. In virtue of their position alone they become nouns, adjectives, verbs, or particles, and grammar is thus reduced to a question of syntax. And, strange to say, of all the dialects, the so-called "Mandarin," or *Kwan-hoa,* current in Peking, is the poorest, containing, according to Williams, no more than 460 distinct monosyllables. Those of Shanghai and Ningpo are not much richer; but that of Swatow, in the south-east of Kwangtung, has 674, and that of Canton as many as 707. But the richest of all is that of Changchew, near Amoy, whose 846 roots yield, according to Medhurst and Douglas, as many as 2,500 different sounds, thanks to the variety of its intonations; for the poverty of sounds obliges the Chinese, like other peoples of monosyllabic speech, to vary the sense by means of the tones with which they are uttered. Hence the vague and undecided character of Chinese pronunciation, which, moreover, varies immensely from province to province and from city to city. Thus the sign rendered into English by the word "child," and found in a vast number of geographical names, is pronounced *ts* in the north; *tz* or *dz* in Canton; *chi* in Macao. So also the sign for *two* is diversely pronounced *eul, olr, ul, urh, rh, lur, nge, ngi, zhe, zhi, e,* and *i.*

This variety in the pronunciation, combined with the poverty of words, gives all the more importance to the *shing,* or *tone,* which plays a greater part than the mere phonetic utterance of the sounds. Thus the sign for *water* may be indifferently pronounced *sui, shui, sh'ui,* or even *chvui,* and will be intelligible to all, provided it be uttered with its proper ascending tone: uttered with the descending tone, none will understand it. The number of tones varies considerably, some dialects containing four, others five, six, or even seven, and that of Fokien possibly more than twelve, if account be taken of all the delicate shades of intonation characteristic of that dialect.

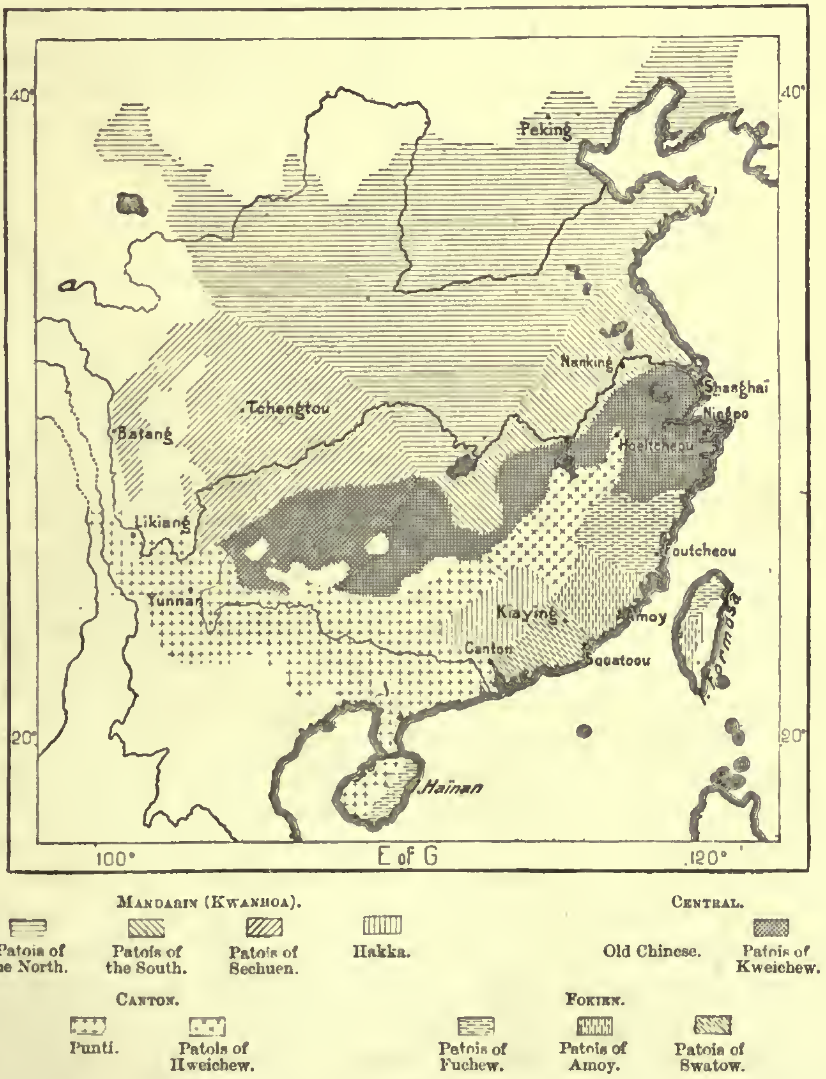
Thanks to these intonations, thousands of meanings may be evolved from the few hundred phonetic roots. Kang-hi's dictionary contains 44,449 signs, each representing a group of distinct meanings, but a great number of which will be pronounced alike. Thus over a hundred and fifty different characters, each denoting a particular series of ideas, are all pronounced *i.* The philosophic writings can only be understood by readers with the text before their eyes, and whenever the conversation rises above the usual current of ideas, recourse must be had to the pencil to make the subject intelligible. This astonishing poverty of phonetic sounds is commonly attributed to the premature culture of the people, whose speech became fixed by the official scribes and academicians at too early a date. The nation has never since been able to overcome the artificial obstruction thus opposed to the free evolution of their language.

The Buddhist missionaries often vainly attempted to introduce one or other of the syllabic alphabets of India, based on the Devanagari. The Christian missionaries also have employed the Latin alphabet for prayers and hymns, which the

converts learn by heart after the sense has been explained to them. But to be of any value for literary purposes these letters require to be burdened with so many diacritical marks that they become more difficult than the Chinese ideographs themselves.

But under the influence of Western ideas a gradual transformation is taking place. Many polysyllabic words, detested by the purists, have already acquired the

Fig. 57.—Chinese Dialects.
Scale 1 : 20,000,000.



right of citizenship, and have a natural tendency to modify the Chinese method of thought, and assimilate it to that of the Europeans. Hundreds of strange forms have also been introduced in the treaty ports to express foreign notions. Such are "steam-air-carriage," "steam-air-boat," "air-swim-steam," meaning locomotive, steamer,

and balloon respectively. These compounds, so alien to the genius of the national speech, are already current not only in the spoken language, but even in popular writings. The changes that have taken place in the Aryan linguistic family during the historic period are now going on under our very eyes in the Chinese language.

The natives of the various provinces would have long ceased to be able to communicate together but for the common ideographic writing system, which can be read not only in China, but also in Korea, Japan, Annam, and Siam. The most marked dialectic varieties are the "Mandarin," or Court language, current throughout the northern and many of the central provinces, the Kwangtong, Fokien, and Chekiang in the south-eastern provinces, which are quite unintelligible to the inhabitants of the rest of the empire. The Nanking dialect is a form of the Mandarin, approaching nearest to the Chekiang, which, according to Edkins, best preserves the primitive elements of the common national speech.

Religion.

In religion there are no such marked differences as in language between the natives of the northern and southern provinces. In the various districts divers rites are practised, which, however, merge so imperceptibly together, that it seems impossible to draw any sharp line between them. The same individuals may even be at once Buddhists, Taoists, or disciples of Confucius. In virtue of his position the Emperor himself belongs to all three religions, and scrupulously fulfils their observances. There is, in fact, more fundamental resemblance between them than might be supposed from the ceremonies and religious treatises. The *ju kiao*, commonly referred to Confucius and conformed to by the lettered classes, is based on the old national worship. The *tao kiao*, or Taoism, completely forgetful of its founder's elevated teaching, has returned to the ancient superstitions, and is now little more than a system of magic. Lastly, the foreign origin of the *fu kiao*, or Buddhism, has not prevented it from having also become thoroughly imbued with the national ideas, or from accepting the outward national observances.

At the dawn of history, some four thousand years ago, the national cult consisted in the worship of natural objects. All the phenomena of the outer world were supposed to be the work of good or evil spirits, to be propitiated by prayer and sacrifice. Trees, rocks, running waters, the whole land, the seas, and the world itself, were all equally animated by some special deity, while above this lower nature, thus peopled by invisible beings, the boundless regions of the heavens were themselves full of angels or demons. Man, product of all the natural forces, was himself a god, although one of the feeblest; hence obliged by supplications and conjurings to guard himself against so many other beings in league against him. In this multiplicity of spirits a certain hierarchy was gradually established. First came *T'ien*, or "Heaven," enveloping the earth, encompassing all nature, illumining it with its rays, and thus merging in the *Shangti*, or "Supreme Lord," the active principle of universal nature, as opposed to *Ti*, or the "Earth," which receives and matures the germs. For three hundred years European scholars have been

wrangling about the true meaning of this term or attribute "Shangti" applied to heaven, and they ask whether it may be translated by the word "God," taken in the theological sense. Abel Rémusat supposed he had even discovered the name of Jehovah in the "Taoté King," or "Book of the Way and of Virtue," where the three syllables I, Hi, Wei, each taken from a different sentence, might represent the sacred name of the Jewish God. But modern critics generally reject all such subtle proofs of relationship between the religions of the East and West. Before

Fig. 58.—The Nine Sacred Mountains.—The Chew Epoch.
Scale 1 : 21,000,000.

300 Miles.

the introduction of Buddhism the evolution of religious thought in China seems to have been spontaneous, starting directly from the basis of spirit worship.

Fancying themselves encompassed by genii, the Chinese supposed that their favour was to be secured, like that of men more powerful than themselves, by prayer and petitions, which required neither a priesthood nor a regular liturgy. Hence the head of each patriarchal family offered food and perfumes on behalf of his kith and kin, while the head of each clan or commune did the same for all its members. In these rites there was no place for a sacerdotal class, and priests are even formally excluded from the religious feasts in which the Emperor appears.

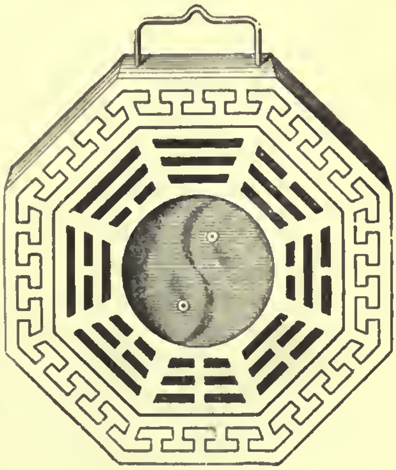
No revelation having been made from above, no interpreters of the divine word were needed; but a hierarchy corresponding with that of the spirits themselves was naturally developed in the social body. Thus to the Emperor was reserved the privilege of presenting offerings to heaven and earth, to the chief rivers and to the sacred mountains of the empire, which from age to age varied in number from five to nine. The feudal lords sacrificed to the secondary deities, while the devotions of private persons were restricted to trees, rocks, and streams. Worship having become one of the functions of the State, its minutest details were regulated by ceremonial codes. Between the speech and religion of the Chinese there has thus been maintained a remarkable analogy. Both have been refined to the utmost, but both still remain at one of the lowest stages of human culture.

The propitiatory sacrifices form an element which has been attributed rather to the surrounding populations than to the Chinese themselves. From the nomad Mongol tribes the "Sons of Han" are supposed to have adopted the sanguinary rites formerly practised on a large scale. Hundreds of courtiers have at times caused themselves to be buried alive in order to accompany their master to the other world. At the death of Hoangti, about two hundred years before the Christian era, several of his wives and body-guard followed him to the grave, and ten thousand working-men were buried alive around his funeral mound. Traces of these savage rites still survive in remote districts, where the people often seek to guard against witchcraft by throwing their new-born babes into the running waters. Wishing to put a stop to these abominations, a mandarin on one occasion caused several of the infanticides to be cast into the Kiang, charging them to convey his compliments to the water gods.

To Confucius and his disciples is usually attributed the cessation of human sacrifices in China. Yet long before that time religious sacrifices had ceased to be offered, while long after it such rites continued to be occasionally practised. Confucius deserves none the less to be regarded as the true founder of the national religion, as regulated by the book of ceremonies. He aimed especially at the revival of the ancient practices associated with ancestral worship, the glorification of the past, as handed down by tradition, being, according to him, the best means of insuring the permanent prosperity of the empire. The supernatural element, which plays such a large part in other systems, he almost excludes altogether. "How," he asks, "should I pretend to know anything about heaven, since it is so difficult to clearly understand what takes place on earth?" "You have not yet learnt to live," he said to one of his disciples, "and you already rave about what may happen to you after death." The duties of man to his superiors, to his neighbour, to the State, were what he was most concerned with, and religion in the strict sense of the term was dealt with only so far as it formed an element in the general system of government. Well balanced by nature and habit, without religious zeal, and ever striving to observe the golden mean, the Chinese have recognised themselves in the sage of Shantung, who has gradually taken the foremost rank in the memory of his people. The accurate historic records left by his disciples, as well as his own simple life, have prevented his name from being obscured by myths and miracles.

But although he has escaped deification, his moral influence has increased from age to age. Four hundred years after his death his only title still was *Kung*, or "leader;" eight centuries later on he became "the first saint," after which his statue was clothed in a royal robe and crowned with a diadem. During the Ming, or last native dynasty, he was declared "the most holy, the wisest, and most virtuous of teachers." After his death a colony of disciples settled round his grave as vassals of his family, sixteen hundred temples were raised to his honour, and he was solemnly recognised as the "teacher of the nation." Except those who have received divine worship, no other mortal has ever been the object of so much veneration. When the Emperor Hoangti ordered the destruction of the old books, and especially of the Shuking, or "Book of Annals," composed by Confucius, four hundred and sixty of the lettered class perished in the flames with the writings of their master.

Fig. 59.—The Taiki, or Magic Looking-glass.



The Feng-shui.

But a public cult, however well regulated by official ceremonies, could not embrace all the popular superstitions, or conjure all the invisible demons hostile to mankind. Hence there remained a considerable number of unofficial practices embodied in the *feng-shui*—that is, "wind and water"—a system which, by a play of words, is said to be "invisible as the wind, untenable as the water." It may, however, be described as the collective body of ceremonies, by means of which we propitiate the spirits of air and water—that is, all nature from the stars of the firmament to the wandering ghosts of the dead. Two principles govern the universe—the *yang*, or male principle, represented by the sun, and the *yin*, or female principle, represented by the moon, the former vivifying and propitious, the latter hostile and deadly. Yet nothing could exist but for this mingling of the two principles, through whose union everything is born and flourishes, and the perfect understanding of which confers immortality. In every house is seen the image of a tiger bearing the *taïki*, on which are represented the yang and yin interpenetrating each other in a magic circle, and surrounded by lines of various lengths indicating the cardinal points and all nature. These lines are the famous diagrams which have served to compose the Yi-king, or "Book of Transformations," attributed to Fohi, and the sense of which so many native and European scholars have vainly endeavoured to fathom.

The faithful observers of the feng-shui are bound to be guided in all things by the magic arts, which substantially resemble those practised elsewhere. The shades of their forefathers are amongst the beings who fill the earth and circumambient spaces, and who exercise a good or baneful influence over the destinies of

the living. The Chinese recognise in the individual three distinct *huen*, or souls—the rational residing in the head, the sensuous in the breast, the material in the stomach. Of these the first two may after death be fixed, one in the memorial tablets, the other in the tomb; but the third escapes into space, seeking to enter some other body, and its influence may become hostile to the family if they neglect their religious observances. The huen of children are most to be feared, because they were still imperfect at the moment of death, and unappeased by a regular cult. The incense sticks burning at the entrance of the houses and shops are to prevent these and all other malignant spirits from entering.

The choice of a grave is of the last importance. Should the soul of the deceased be exposed to baneful influences, it will certainly endeavour to avenge itself, and its anger will be shown in the endless disasters that may fall on the family. The good and evil genii, who "come in the cloud and vanish in the fog," are eternally wandering over the surface of the earth, and the essential point is to build the houses, erect monuments, lay down roads, construct canals, and sink wells in such a way as to obstruct the flight of the hostile and favour that of the beneficent spirits. But the knowledge of all this is extremely difficult, and all calamities are attributed to the carelessness or ignorance of the professor of feng-shui. In every part of the country mines and quarries have been filled by the local authorities, because the inhabitants have complained that they have caused bad harvests by allowing the demons to pass by. Lawsuits often occur between neighbours accusing each other of having made changes on their lands, turning the good spirits aside. A single tree planted on the right spot, or a tower raised on an eminence, will at times suffice to place the whole district under a happy conjunction of the elements. From the north came the bad, from the south the good spirits, and in general winding streams or gently rounded hills promote prosperity, while sharp turnings and steep bluffs are dangerous to the surrounding populations. Hence straight lines must be avoided, and all the roofs of the buildings are curved upwards, so that the evil influences may be turned aside.

In some respects the feng-shui constitutes the rudiments of natural science. According to its professors it embraces the study of the general order of things, their numerical proportions, their inner life and outward forms. When the European engineer digs straight trenches in the ground, throws bridges athwart the torrent, tunnels the hills obliquely, lays down iron rails across the graves of the dead, the people look on with a feeling of downright dismay. The great opposition to railways is due not only to the fear entertained by the Government that Europeans may gradually make themselves masters of the land, but also to the traditional respect of the people for the earth that bears and nourishes them.

The religious system founded by Lao-tze, and which originally differed essentially from the national religion represented by Confucius, has gradually reverted to the old superstitions, and now differs little, if at all, from the practices of feng-shui. Lao-tze did not, like Confucius, look to the past to discover a model of conduct for the future. He sought for absolute truth, without troubling himself with precedents drawn from the history of the emperors. Heedless of good or evil

spirits, or of ancestral shades, he studied the first causes of things, and his language, as far as it can be ascertained from the obscure text of the Taote-king, recalls that of the Western philosophers. For him "matter and the visible world are merely manifestations of a sublime, eternal, incomprehensible principle," which he calls *Tao;* that is, the "way of salvation." Whoso controls his passions may escape successive transmigrations, and through contemplation pass directly to everlasting bliss. Such was the doctrine of the great mystic and his immediate successors. But the Taoist priests soon claimed to have discovered immortality even in this world, and sought the favour of emperors by means of elixirs and nostrums. Thus was Taoism gradually confounded with magic, and of the teachings of Lao-tze nothing remained but an empty name. The Taoist priests, most of whom, like the Buddhist lamas, take vows of celibacy, are the magicians, wizards, "table-turners," and "mediums" of China. Without any common body of doctrine, some are mere Shamanists, others astrologers and fortune-tellers. The learned generally affect to despise Taoism, although some of its practices are imposed on the mandarins, or introduced into the national cult, as observed in presence of the Emperor. The Taoist high priest, or "heavenly doctor," who claims direct descent from Lao-tze, receives a subvention from the State in exchange for the amulets, holy objects, and instructions on red or green paper which he distributes throughout China.

Fig. 60.—Buddhist Priest.

Buddhism.

The Buddhist religion, more faithful than Taoism to its original doctrines, has secured the adherence of the great majority of the population. Although of foreign origin, it has become at least outwardly the national religion, but in a form which closely assimilates it to the primitive spirit worship. It was introduced twenty-two centuries ago, and three hundred years afterwards received official recognition. Yet it had to struggle both against the disciples of Confucius and the Taoists, and did not reach the regions south of the Yang-tze till the sixth century. At this time thirteen thousand Buddhist temples had been erected, but the alliance had already begun with the old national cult. The spirits of wind and water, the shades of the great, all the members of the Chinese pantheon were easily introduced into the multitude of *Boddhisavtas,* and other more or less incomplete incarnations of Buddha. To make room for all, new degrees of holiness and beatitude were added to those already in existence. The domestic gods remained under other names by the side of those worshipped by the community, and the number of ceremonies was increased without exciting the suspicion of the people. To the cultivated classes

Buddhism offered its metaphysical subtleties, while it gained the adherence of the lowly and wretched by admitting them to its pompous ceremonial, and promising redemption from their sufferings in the after-life. The most widespread Buddhist work in China is the "White Nenuphar," a collection of consolatory and loving

Fig. 61.—The Goddess Kwanyin.

words and promises. Of all the Buddhist sects the most popular is that which worships Kwanyin, the only woman included in the number of Buddha's disciples. She is the goddess of mercy, the patroness of childless women, of mariners threatened by shipwreck. She is often represented with a child in her arms, and many of her images are exactly like those of the Madonna, whose

worship was contemporaneously developed at the opposite extremity of the Old World.

The flourishing period of Buddhism in China is comprised between the sixth and eleventh century, when the monks, fired by their zeal for the propagation of the faith, traversed all China and the neighbouring lands. Then were made those important explorations, not all the records of which have yet been translated. Then also were made the Chinese translations of nearly fifteen hundred Sanskrit works, most of which no longer exist in the original, and which contain the most valuable documents on the history of Buddhism. During this period of early fervour the country was covered with those countless *tá*, or pagodas, without which Europeans can hardly imagine a Chinese landscape. In these temples the rites consist of hymns, offerings, prostrations, processions, and eternal repetitions of the syllables *O, mi, to, fo*, the Chinese phonetic transcription of Amitabha, one of the Hindu names of Buddha.

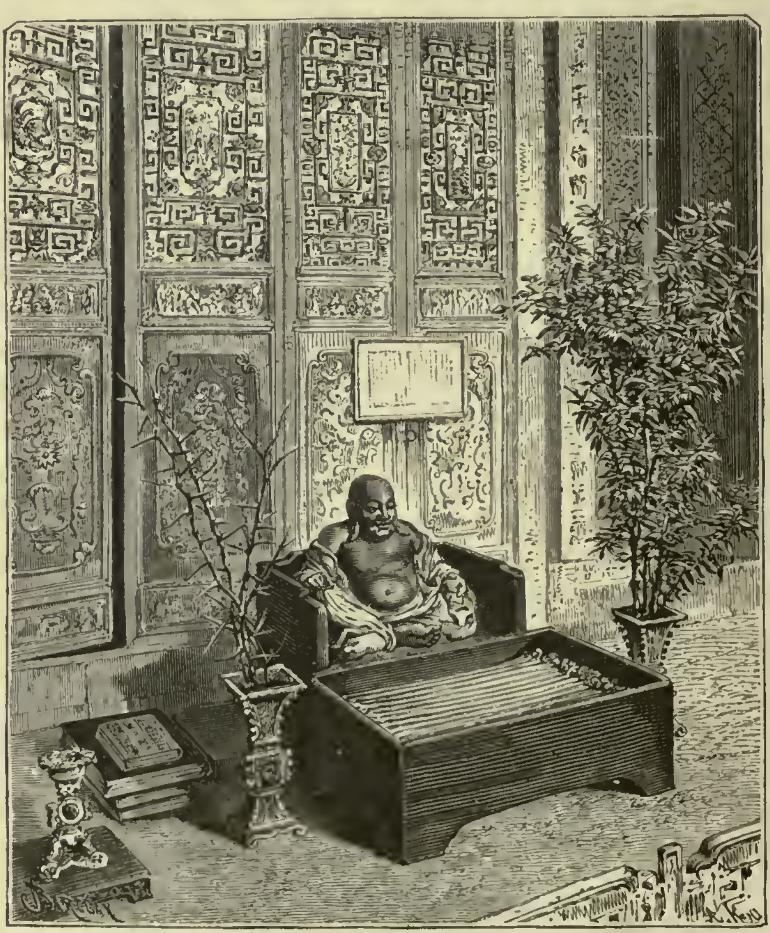
The multitude of monasteries attests the former preponderance of the religion of Fo, or Buddha. Like the pagodas, most of the larger ones date from at least several hundred years ago, and are now mostly in ruins, overgrown with shrubs and rank vegetation. The decline of Buddhism is evident, and in many districts it has already been reduced to an empty ritual left to the monks. Emperors and high functionaries have often issued edicts against superstitious practices not recognised in the official ceremonials, and warning the people against the priestly "impostors who rob the beehive." But although the public are daily forsaking the bonzes, they continue none the less their religious practices. The scepticism of the lettered classes has created a false impression as to the real sentiments of the people, whose worship of their household gods, prostrations, pilgrimages, bear witness to the vitality of their belief. They are not even satisfied with one, but practise all three of the national religions, worshipping their ancestors with Confucius, conjuring the genii with the Taoists, communing with the saints in conformity with the Buddhist doctrine. In other respects the three cults harmonize perfectly, the first appealing to the moral side of man, the second to his sense of self-preservation, the third raising him to the higher world of thought and imagination. Thus the three, as the Chinese themselves say, "make but one religion." The priests of all the rites frequently officiate at funerals.

The Jews and Mohammedans.

Amongst the foreign religions introduced at various times is the worship of Jehovah, which, however, has almost become extinct. The Jews, who are often called "Blue Mohammedans," from the colour of their rabbis' head-dress and shoes, are regarded by many Chinese as forming a sect of Islam. They are also called Lehtze-kin, or "Cutters of Veins," and Taû-kin-kedu, or "Extractors of Sinews," in reference to their manner of killing and dressing the animals eaten by them. They were formerly far more numerous, and many rose to high rank in the State; but they are now reduced to a few hundred souls, nearly all settled at Kaïfung-fu, capital of Honan. The old Jewish colonies of Nanking, Peking,

Ningpo, have all died out, and the conversions to Mohammedanism and the Chinese national religions have gradually reduced the Semitic immigrants to a mere handful. Even these speak Chinese only, and their present rabbis, the "Aronists," or "Aonites," as they are called, read the Hebrew texts according to the Chinese pronunciation. Thus the name of Israel becomes in their mouth Ye-se-lo-ni. According to their unanimous tradition they belong to the tribe of Asher, and entered China during the Han dynasty (202 B.C.—264 A.D.). They call their

Fig. 62.—Domestic Altar.—The Smiling Buddha.



country Tienchew, which is the Chinese name for Ceylon, and when the European Jews recently succeeded in opening relations with them, it was found that they had lost all sense of national cohesion. The synagogue was in ruins, no one could read the Pentateuch, and rewards were even offered to any persons capable of interpreting it. They supposed that Mecca and Medina were their holy cities, and arrangements were being made for definitely changing their religion.

On the other hand, the Mohammedans have acquired great influence, and according to the lowest estimates number at present at least 20,000,000. They are

said to form a majority of the population in Kansu, and one-third in several districts of China proper. To these must be added the Dungans and the other Mussulmans of Zungaria, Kulja, and Eastern Turkestan, in order to form an adequate idea of their power and influence in the empire.

All the Chinese Mohammedans are collectively known as Hwei-hwei, a term formerly applied to the Uigurs, while they call themselves Kiao-mun, or "Religious people," in contradistinction to the other Chinese, regarded by them as Unbelievers. The Mongolian epithet Dungan, usually explained to mean "outcasts" or "loafers," is restricted to those of the north and north-west, who hold no direct intercourse with their co-religionists the "Panthays" of Yunnan. Nor do the Chinese Mussulmans anywhere form a homogeneous ethnical group. Descended from the Uigurs, Tanguts, and Tatars, they are intermingled in the north and west with Chinese proselytes, while in Yunnan the Turki and Mongol elements are represented only by the descendants of the soldiers settled here by Kublai Khan. Since the accession of the present Manchu dynasty all are obliged to wear the pigtail, and their women have even been compelled to conform to the barbarous Chinese fashion of preventing the natural growth of their feet. Nevertheless, Mohammedans can always be distinguished from the other natives by their haughty bearing, frank expression, and in the west by the practice of carrying arms. Abstaining from alcoholic drinks, tobacco, and opium, they are generally more healthy than their neighbours, while their spirit of clanship insures for them a material prosperity far superior to that of the surrounding populations.

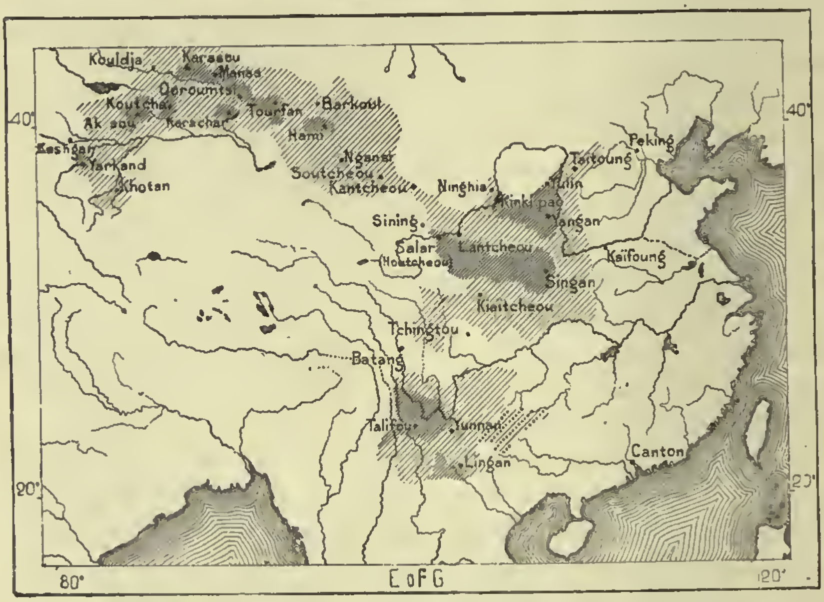
According to the unanimous tradition Islam first reached the northern provinces during the reign of the Emperor Taïtsung in the seventh century, when Ibn Hamsa, related to the Prophet, settled with three thousand immigrants in Shangan, the present Singan-fu. Being well received, they freely raised their mosques, and their ministers were invested by the Government with a certain civil authority over their congregations. About the same epoch others entered Yunnan, and the Chinese annals of the year 758 speak of Arab pirates who sacked the suburbs of Canton and plundered the imperial granaries. The communications between the Yunnan Mohammedans and the rest of Islam have at all times been maintained either through Canton or more directly through Bhamo and Burmah. The standard of education being higher in this province, natives are always found capable of interpreting the Koran and the Arabic prayers recited in the mosques.

At present the northern Hwei-hwei keep up their relations with their western brethren through Zungaria. Here the Uigurs as well as the Tanguts of Kansu, formerly Buddhists or Nestorians, were converted to Islam when this religion was adopted by their fellow-countrymen in the Jagatai State. Their numbers were increased by immigrants from East Turkestan, and by the Moslem Mongolians left in Zungaria by Tamerlane. Thus they gradually acquired the ascendancy in this part of the empire, where are situated the two cities of Salar (Huchew) and Kinkipao, the Mecca and Medina of the Chinese Empire. Some of the Kansu towns have hundreds of mosques, and their Mohammedan inhabitants have monopolized the whole trade of the country.

Compared with their co-religionists elsewhere, the Hwei-hwei are free from aggressive fanaticism, many submitting to the public examinations in the moral precepts of Confucius, and practising the rites of the State religion. As Mandarins they even offer the prescribed sacrifices in honour of the local divinities. Nevertheless they have by no means lost the spirit of proselytism, and they keep carefully aloof from the surrounding "pagan" populations. All are Sunnites, divided into the two sects of the Shafieh and Azemi. But in the presence of the common enemy

Fig. 63.—Regions wasted by the Mohammedan Insurrections.

Scale 1 : 45,000,000.



Centres of Mohammedan Revolt. Tracts wasted by the Insurrection of 1870—75. Range of the Miaotze Insurrection.

1,200 Miles.

all differences are forgotten, rich and poor bringing their offerings to the imams of both rites.

In Yunnan also the Panthays made common cause with several of the Miaotze hill tribes against the hated Manchu. Here the first rising was caused by rival interests in a mining district, where Chinese and Mussulmans were working in separate groups. In the early conflicts the advantage generally lay with the latter, and to put an end to the disorders the Mandarins planned a scheme of wholesale extermination. A day in the month of May, 1856, was chosen for the massacre, and in the districts where they were in a minority most of the Panthays were butchered. But elsewhere they held out successfully, and even seized the rich city of Tali-fu, a stronghold of the first order, through which they procured arms and supplies from Burmah. In 1860, Yunnan-fu, capital of the province, fell into their hands; but many of the chiefs were bought over, and turned against their

co-religionists. Nevertheless the civil war raged for thirteen years longer, when it was concluded by the slaughter of 30,000 Panthays in the streets of Tali-fu.

In North China the insurrection began in 1860 with the massacre of the Chinese of Hoachew, east of Singan-fu. At first the Chinese and Mongolians everywhere escaped to the mountains or deserts, or even allowed themselves to be killed without resistance. In Shensi and Kansu the work of destruction was carried out with pitiless fury, and here the heads of families were seen to slay their women and children in order to devote themselves entirely to the holy war. In the valley of the Wei not a single village remained standing. With the exception of the Christians, all the inhabitants who could not escape were put to the sword; the prisoners were burnt alive; old and young alike were murdered; and the dead were numbered by the million. In certain districts a few solitary buildings still standing excite the wonder of strangers, and but for the impregnable works of a few large cities, the northern and western provinces would have been entirely freed from their Chinese inhabitants. The country seemed finally lost to the empire, when the lack of cohesion and a common plan of operations proved fatal to the Dungan rebels. After fifteen years of strife victory remained with those who commanded the best-disciplined troops. The Chinese generals successively recovered Shensi and Kansu, and after seizing the military stations in the Tian-shan they were able to scatter the last embers of revolt in the Zungarian steppes. But although thus vanquished at both extremities of the empire, the worshippers of Allah still constitute a power in the State, and certain writers, perhaps somewhat prematurely, foresee the time when they will become the ruling element in the extreme East.

The Christians.

Although they entered China contemporaneously with the Mohammedans, the Christians are far less numerous, and their influence may, relatively speaking, be regarded as of no account. But it was not always so, for the Nestorians from Mesopotamia and Baktria had at one time developed flourishing communities in the empire. Besides the evidence of the native records, there existed till recently a rock inscription commemorating the entry of the Christian missionaries into China. Discovered near Singan-fu in 1620, and since frequently visited by Europeans, this stone was probably destroyed during the Taïping rebellion. It was seen so recently as 1867 by Williamson, but it had already disappeared when Richthofen visited Shensi in 1872. About its authenticity there can be no doubt, the inscription having been frequently reproduced, and a correct copy deposited in the National Library. According to this document the Syrian missionary, Olopeunn, reached China in 635 with the sacred writings and images, and three years afterwards obtained permission to build a church in Singan. The new belief spread rapidly, and in spite of subsequent persecutions, especially in the ninth century, Christian communities were found in all the provinces when Marco Polo traversed the country. To these communities is probably due the legend of

"Prester John," which haunted the imagination of the Western peoples during the Middle Ages.

Christianity is no longer represented in China by the Nestorian sect. The Uigurs, Tatars, and other northern races, who had conformed to this religion, were converted to Islam probably about the time of Tamerlane. It was these very descendants of the Nestorians who, under the name of Dungans, recently threatened the integrity of the empire. The Nestorians were succeeded by the Roman Catholic missionaries, and towards the close of the thirteenth century Montecorvino founded churches in China and became Bishop of Peking. Later on these proselytizers were received with less favour, and were even opposed by their own countrymen, the European traders of Macao, who feared to be banished from the empire if they favoured the Christian propaganda. But in 1581 the Italian Jesuit, Ruggiero, penetrated to Canton disguised as a native, and he was followed the next year by the celebrated Ricci, a shrewd man of the world, who secured the favour of the great by his vast learning, and who at last became a court pensioner. The Jesuit missionaries, who continued the work of Ricci, pursued the same policy, and made many converts amongst the higher functionaries. They were careful not to condemn absolutely the national rites, and especially those associated with ancestral worship. They even tolerated the offerings of fruits and flowers, and the sacrifices in honour of the dead, regarding these ceremonies merely as evidences of filial devotion. But the Dominican friars, who arrived towards the end of the seventeenth century, denounced all these acts as idolatrous, and, as in South America, an open rupture took place between the two religious orders. A bull issued by Clement XI. in 1715 condemned the Jesuits, and ever since the native neophytes have been required to renounce the traditional rites of their country. Hence conversions have become rare, and mostly restricted to the poorer classes, whom poverty exempts from performing the funeral ceremonies. Infants also rescued during times of war or distress, or even purchased from the famine-stricken, are brought up in the Catholic faith, and thus are recruited the Christian communities of the empire. "For a hundred francs," says Bishop Perrocheau, "we are able to regenerate at least 300 or 400 infants, of whom two-thirds go straight to heaven." In 1876 there were about 300 European missionaries, besides hundreds of native priests and catechists, ministering to from 400,000 to 500,000 faithful, with a yearly increase of about 2,000.

The Protestant missions were first opened in 1842, after the treaty of Nanking, and were for a time restricted to the five treaty ports. Since 1860 they have been gradually diffused throughout every part of the empire except Tibet and Eastern Turkestan. Numbering about 250, nearly all English and Americans, and assisted by over 600 natives, the missionaries have founded over 20 hospitals and nearly 350 schools, attended by 7,500 pupils. In 1878 the Chinese Protestants numbered about 50,000, chiefly centred in Fokien. Most of the converts are drawn from the Buddhist sect of the Ningpo district, which abstains from eating flesh. To the opium trade, imposed by Great Britain on China, is largely due the failure of the Protestant missions, the natives naturally asking themselves whether

the nation poisoning them with its drugs is likely to improve them with its teachings. But Protestant and Catholic missions alike suffer from contact with the European element in the seaports. The Catholic priests teach the faithful Latin only to prevent them from being perverted by the "pernicious literature" of the West, while the Protestants take care not to teach their converts English to prevent them from going to seek a living as interpreters in the treaty ports.

Habits and Customs.

It is difficult to pronounce a general judgment on the Chinese moral standard, and assign their true place amongst civilised peoples to the "Sons of Han." Most

Fig. 64.—A Chinese Savant.

travellers have a tendency to treat them with ridicule, and some seem incapable of speaking in a serious tone of the "Celestials," as they ignorantly call them. With the missionaries the case is different; but they, on the other hand, see in everything the consequences of original sin, and usually describe the "Heathen Chinese" as a degraded being, a prey to every vice. Others again, and these would seem to be the most numerous, grow accustomed to the new surroundings and become naturalised Chinese. Some of the missionaries, while preserving their Western culture, become prejudiced in favour of the natives, and feel inclined to

recognise in them a certain moral superiority. Thus in the last century the enthusiastic descriptions sent to Europe by the Jesuits conferred a halo of virtue and wisdom on the natives, which was by no means justified by their history. Authors delighted in choosing their examples from this new world of the remote East, comparing the Chinese, taken as their models, with the inferior civilised peoples of the West.

The Chinese on their part, comparing themselves with the "Western Barbarians," naturally claim the superiority, if not in industry, at least in true culture, and appearances certainly often lend a colour to their pretensions. Nowhere else are courtesy and kindly feelings more general. The people are naturally reserved, earnest, good-natured. "The men of the Four Seas are all brothers," says the national proverb, and even strangers have travelled from one extremity of the land

Fig. 65.—Chinese Children.

to the other without even meeting with a rudeness or incivility. In Yunnan, Hunan, Kiangsi, and some other provinces the crowds are doubtless somewhat importunate, but even here the protection of any aged person always insures respect. No drunkards are seen in the crowded streets, and scenes of violence are seldom witnessed beyond the limits of the European "concessions" in the treaty ports. But the national character shows perhaps to the best advantage in the schoolroom. None of the children ever dream of causing a disturbance or neglecting their tasks. Here they show themselves such as they will continue to be throughout life—docile, thoughtful, painstaking, and persevering. Grave beyond their years, they are none the less bright and merry, neither choleric nor given to boisterous laughter like the Mongolian children. From their early years they seem already fully conscious of their dignity as civilised beings.

A feebly developed spirit of enterprise is perhaps the feature in which the Chinese betray their real inferiority to Europeans. They may doubtless show themselves as ingenious as others in the struggle for existence, but they also remain enslaved to routine and tradition, relying more on passive resistance than on personal energy and daring to overcome their difficulties. As a rule they are free from "vaulting ambition," as shown by the popular sayings and the precepts of their moral codes. They shrink from adventures, speculation, and sudden changes of life, and no other nation has fewer warlike songs or more enthusiastic encomiums of the arts of peace. "When we departed the plants were already sprouting; when we returned they were withered. The journey is long, meagre the diet! What undeserved miseries, since I have had to bear arms, ceasing to follow the plough!" Such is the sad song of the Chinese peasant recruit, so different from the fiery hymns sung in chorus by the Western conscripts. A strange spectacle is presented by this national poetry, celebrating above all things the praises of peace, sobriety, regular toil, the calmer affections of the heart. Yet it lacks neither dignity nor depth, and vivid thoughts and sentiments are often embodied in a few striking strophes. But it is a poetry seldom inspired by personal enthusiasm, while the meaning is often hopelessly clouded by the exigencies of conventional forms and stereotyped symbolisms. During the natural evolution of the national intellect the Chinese writers have even at last confounded poetry with a rhymed code of ethics, the Chinese bard lacking all lyrical sentiment, and appearing always to speak in the name of a family or a community.

In Chinese society the family group is in any case far more solidly constituted than in the West. The whole nation, which formerly bore the name of the "Hundred Families," is regarded as forming one family, in which the social duties resolve themselves into those of the child towards the parent. The whole moral system is based on filial respect, and the Government itself is merely an extension of the paternal authority. As laid down in the Hiao-king of Confucius, filial piety is the foundation of society. The "five immutable laws" are the relations of father and children, of king and subjects, of man and wife, of age and youth, of friend and friend. All flows from the natural authority of the father and obedience of the son, cemented and sanctified by tradition and the laws. Such is the principle which has for ages held together the various elements of Chinese society, constituting it a lasting hierarchical system. Social changes have accordingly become more difficult to realise, and have been attended by more sanguinary struggles than elsewhere. The Chinese have a fainter conception than Europeans of morality and freedom, of whatever gives to the individual his personal worth, independent of the community of which he is a member. The family alone is considered as possessing any political power in the State, and in former times, when the people were consulted, votes were taken by the family. Even now in municipal matters the head of the household alone has a voice, the father being considered as the depositary of the sentiments of all his kindred. He is honoured and rewarded for their virtues, but also responsible, and even punished, for their faults. The great deeds of the son ennoble the father and the whole line of his ancestry; his crimes

disgrace all previous generations. Such is the power of these patriarchal ideas that a single blow aimed by the son against father and mother is regarded as parricidal, and punished by death. In times of distress the young often earn a few hundred pounds for their starving families by offering to take the place of wealthy criminals condemned by the magistrate. For the law seeks only the expiation of crime, and as long as justice is satisfied, it matters little what head falls. Pious sons thus dying with their parents' blessing are

Fig. 66.—Terrace with Funeral Urns near Amoy.

filled with the ineffable joy of having fulfilled their filial duty in all its sublimity.

In the funeral ceremonies, especially of the father, custom requires the children to give public expression to their grief. The eldest son, chief heir and head of the family, or, he failing, his first-born or adopted son, has to fix one of the three souls of the dead in the commemorative tablet of his virtues, burn incense to his shade, render his journey easy by supplying him with fictitious money in paper, as well

as clothes, horses, servants, boats, also of paper, representing everything that the departed may require in the other world. Mourning lasts for three years, and for the whole of this time the mourners must abstain from meat and wine, and keep from public gatherings. Custom also requires that the remains of the dead be brought to their native places, and as the carriage of a single body would often be expensive, they generally wait until a sufficient number can be got together to form a large convoy. Hence the numerous temporary cemeteries and mortuary villages, with their funeral urns and coffins, all tastefully decorated with emblematic paintings, representing flowers, birds, or musical instruments. Vessels are also freighted by the friendly societies to bring back the remains of those dying in foreign lands. Every year the people clothed in white, the colour of deep mourning, resort in the month of May to the graves and mortuary temples with fruits, flowers, and other offerings, which are soon picked up by the birds nesting in the surrounding thickets. In these hallowed places there is no distinction of rank, age alone taking precedence. The simple peasants and day labourers generally know the history of their families for many generations back, and are able to repeat not only the names, but even the great deeds of their forefathers. The contempt entertained for the bonzes is due mainly to the fact that they have renounced the family ties, or have become outcasts by being sold in their youth to the monasteries.

Fig. 67.—Manchu Lady.

Long funeral rites are not usual in the case of children, bachelors, spinsters, illegitimate women, or slaves. The bodies of infants are often even left by the banks of streams, a custom which has led many travellers to attribute the general practice, especially of female infanticide, to the Chinese people. But this crime has never been sanctioned by public opinion, or authorised by the Government, as has often been asserted. Nevertheless it is certain that in some provinces the poor are in the habit of exposing their children, while female infanticide is common, especially in the Amoy and other overpeopled districts of Fokien. Extreme poverty is the sole cause of the practice, which the Mandarins content themselves with denouncing in proclamations read by nobody. The impossibility of providing a dower for girls condemns them to a life of hardship or dishonour, from which their parents rescue them by an early death, unless they succeed in selling them as slaves or the future brides of some village youth. In these cases the price runs at the rate of eight or ten shillings for every year of their age. Many

are also bought by the missionaries, whose congregations are thus fictitiously increased.

But while infanticide is either censured, or at most tolerated, in certain districts, the absolute right of the father to sell his offspring into bondage is fully recognised by the law. Yet the practice is rare, although a large number of girls are destined to a life of slavery. Rich families often own them by the dozen, and most families in easy circumstances have at least one slave amongst their servants. However, the slave state is for women only temporary, their masters being obliged to provide them with a husband when their condition is altered. Male slaves also may before their thirtieth year require their owners to find them wives, and as heads of families they transmit the slave state to the male issue only down to the fourth generation. In other respects the slaves are mostly treated like the other servants, receiving instruction in the schools, competing at the public examinations, and obtaining official appointments. In the latter case the owner is bound to allow them to redeem themselves and families. Married women also may be sold by their husbands, but only as wives, never as slaves.

A material proof of the inferiority of woman in Chinese society is the practice of deforming the feet, to which countless millions are subjected, even amongst the poorer classes. Lockhart refers the introduction of this custom to the year 925; but it must have spread very slowly, for no allusion is made to it either by Marco Polo or the other mediæval travellers. Now it is so rigorously enforced that everywhere throughout the northern provinces, except in Peking, all the women submit to the torture, from which the peasantry in the south and in Sechuen are completely emancipated. The Manchu ladies also, as belonging to the conquering race, are not required to conform in this respect to the national custom, although they imitate it by confining their feet in such small shoes that they are obliged to walk tiptoe, whence numerous accidents and serious complaints. In general the artificial deformity has become in China the distinctive mark of "good society," so that even those who condemn the practice as barbarous are fain to inflict it on their daughters, in order to save them from a life of celibacy. The feet are usually bandaged up according to various methods at the age of five or six, and when once crippled in this way the unfortunate victim of fashion becomes almost absolutely helpless. She can lift no heavy weight, apply herself to no useful work, nor even walk straight, but is obliged to totter along with short quick step, balancing herself with her outstretched arms. And this is the motion compared by the poets to the waving of the willow in the zephyr! Yet the rustic women seem to take their share of the field operations without apparent distress.

Remote traditions point to the existence of the "Matriarchal" state in China. "Before the time of Fohi," say the old books, "men could tell their mother, but not their father." But since the constitution of the modern family, law and custom establish the absolute inferiority of woman as wife and daughter. After venerating her parents she must venerate her husband. "If I wed a bird," says the proverb, "I must fly after him; if a dog, I must follow him to the hunt; if a clod of earth, I must sit by its side and watch over it." All the symbolic acts of the

betrothed remind her that submission is for the wife the virtue of virtues. Whatever be the husband's conduct, she must needs submit and obey in silence. She may appeal neither to parents nor magistrate, and may at most suspend in the temple a paper image of her lord, and ask the "Goddess of Mercy" to change his heart. Panhwei-pan, the most illustrious of learned Chinese women, who flourished in the first century of the new era, has laid down all the duty of woman in the classic memoir of the "Seven Articles." She tells us that the old custom was at the birth of a daughter to offer to the father bricks and tiles, "bricks because we tread them under foot, tiles because they are exposed to the inclemency of the weather." "The wife must be a mere shadow, a simple echo." When her husband selects one or more concubines, generally from amongst his slaves, she is bound to welcome and live in peace with them. The husband alone has the right of divorce, and without arbitration he may dismiss his wife, even though her only fault be bodily ailments or a love of gossip. But when she displeases him he usually prefers to get rid of her by sale, entering into a formal contract with the purchaser, which is regarded as a purely personal matter. Nor has the self-immolation of the widow on her husband's grave entirely disappeared, the usual methods being by drowning, hanging, or poisoning themselves, never by fire, as in India. Their resolution is announced beforehand, when relatives, friends, and the curious assemble from all parts to encourage and applaud. When the Anglo-French army entered the province of Pechili in 1860, thousands of women committed suicide to avoid falling into the hands of strangers. Thus the wife is taught to consider that she has no existence apart from her husband, and for whatever liberty she may enjoy she is indebted to the general mildness of the national character. Virtuous maidens and widows are also honoured after death with numerous triumphal arches outside the large cities.

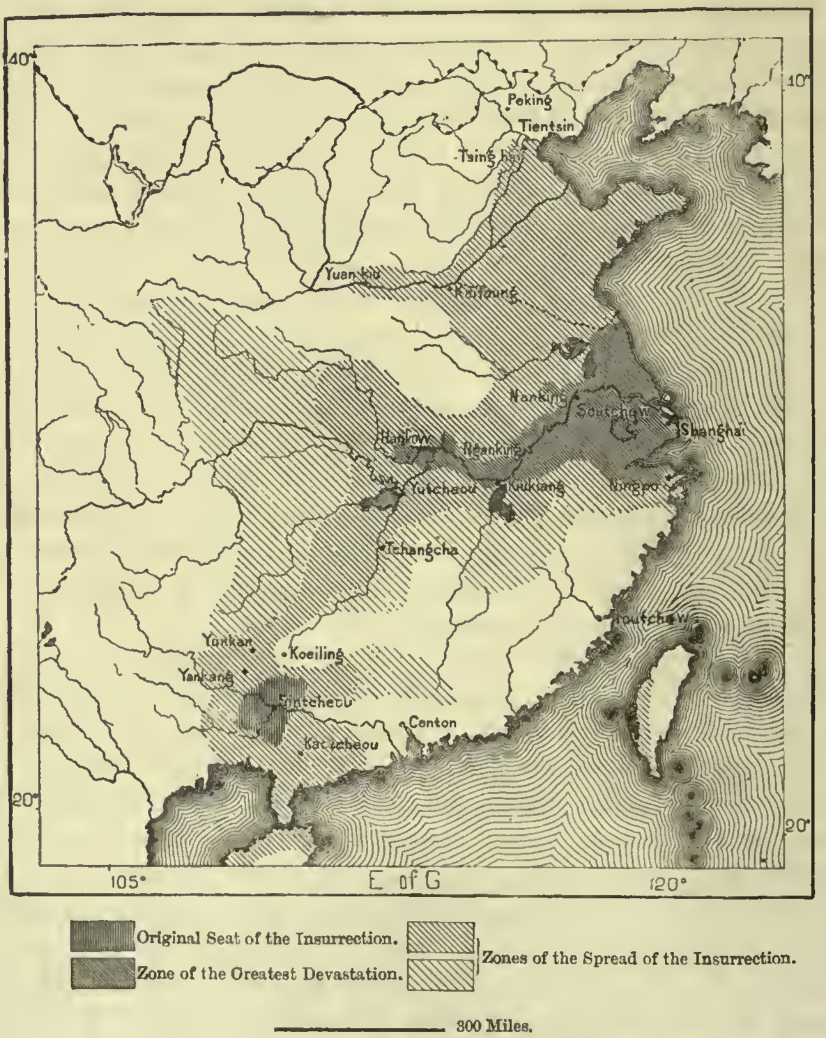
Like all other social acts, marriage is accompanied by endless ceremonies, the symbolism of which is little understood. "Heaven itself," says the Shuking, "has made the distinction of ceremonies, which are for us immutable laws." The *li*, or "ceremonial," however, comprises manners and etiquette, as well as everything that distinguishes cultured from barbarous peoples. Whoever respects tradition finds his line of conduct already laid down for him in every civil or religious ceremony, in his visits, receptions, and other social duties. He knows the prescribed number of salutations and knee-bendings; calculates to a nicety the length of his stride, his "bowing and scraping," the pitch of his voice, the extent of his smile. In his tender years the greatest delight of Confucius, the typical Chinaman, was to salute his playfellows with all the ceremony of his elders, inviting them to be seated, yielding them the first place, imitating the rites associated with ancestral worship. "All virtues have their source in etiquette" is a sentiment attributed to him.

Secret Societies—The Taïpings.

Nevertheless the numerous revolutions which have shaken the Chinese social system to its foundations show that, beneath all this formal parade, the pulse of the

nation is quickened more by the pressing interests of life than by the rigorous performance of a symbolic ceremonial. The struggle for existence prevents the masses from seeking a sanction for their acts in the conduct of the Emperors Yao, Shun, and Yu. "The son," says the national proverb, "resembles the times more than he does his father and mother;" and the times bring about constant changes,

Fig. 68.—Lands wasted by the Taïping Insurrection.
Scale 1 : 22,500,000.



if not in the moral code, at all events in the real life of the people. The oft-repeated statement that China has been exhausted by its precocious development is false, for no other race recovers more rapidly from apparently overwhelming disasters. The distinctive features of the national character are none the less faithfully reflected in the profound changes continually taking place. In Europe the initiative comes mostly from the individual; in China from the *hui*, or

societies, which are maintained from generation to generation. For here nearly the whole nation is influenced and guided by the action of these social unions. In all the towns nearly every person, rich or poor, belongs to one or other of the numerous brotherhoods, which are either publicly constituted, or else secretly organized. The very mendicants, or "children of the flowers," as they are

Fig. 69.—Routes of the Chief Modern Explorers in China.
Scale 1 : 25,000,000.

600 Miles.

called, have their associations, with their statutes, special code, feasts, and gatherings.

The late civil war has shown the great influence of the secret societies, and has also made it evident that the "sons of Han" are by no means a stagnant people hopelessly wedded to the old ideas, as is so often asserted. The common error of confounding the Chinaman and the Mandarin has been rudely dispelled by recent events, and Confucius himself had long ago said that the "Law of the Great Philosophy is to renovate mankind." The Taïpings represented a fresh departure in the national development, and if they were not upheld to the end by public

opinion, it was probably because they plunged too daringly into the new religious and political career. Too indifferent to the claims of the old national Ming dynasty, they had not sought in the past history of the country a stand-point of common action against the Manchu usurpers. In 1848 began the great revolt, arising at first out of a petty quarrel about some idle ceremony, but soon assuming the proportions of a general outbreak, in which religious passion, class interests, and hatred took part. From the Kwangsi valley the flames spread rapidly throughout the southern provinces, whence they gradually reached the Yang-tze basin, the Hoang-ho, and the very gates of Tientsin. The kingdom of the "Taïping"—that is, the "Great Peace"—was proclaimed in 1851, and in 1853 Nanking was chosen as the capital, under the name of Tienking, or "Heavenly Abode.".

Mistress of the fertile central provinces, of all the Lower Yang-tze valley, and even of Ningpo and other seaports, the insurrection had every chance, if not of ultimate success, at least of profoundly modifying the whole political and social system. But now came the European intervention in favour of the Manchu dynasty, first with volunteers, and then with regular Anglo-French forces. Although mingling Christian rites with their worship, using in their edicts a language borrowed from the missionaries, including the Bible amongst their sacred writings, and even offering official positions to foreign Christians, the Taïpings failed to secure the sympathy of the European residents, who preferred their commercial to their religious interests. By their means the Imperialists saved Shanghai in 1862, and soon after rapidly recovered all the more important strategical points. Then followed the usual wholesale butcheries, to escape from which the rebels banded together as brigands, still wasting the open country, but without further political aim. The empire was preserved, but the restoration of the old order of things is only apparent. The various secret societies of the "Nenuphar," the "Three Precious, Heaven, Earth, and Man," and so many others, all aiming at the political and social renovation of the land, are still at work. The old machinery of the laws, formularies, official practices, also become daily more out of joint with the times, while the growing relations with foreign countries are exercising a profound influence, and hastening the ruin of effete institutions.

The few European colonies settled on the coast and along the banks of the Yang-tze, although a mere handful compared with the surrounding multitudes, are the real starting-point of a new epoch in the national life of China. Henceforth East and West are united in the great movements of history, while the empire is becoming yearly better known to the outer world by geographical exploration. European travellers have already traversed the land in every direction, and fresh itineraries are thus constantly added to the network of previous research. Nothing now remains to be done except the methodic exploration of the several provinces.

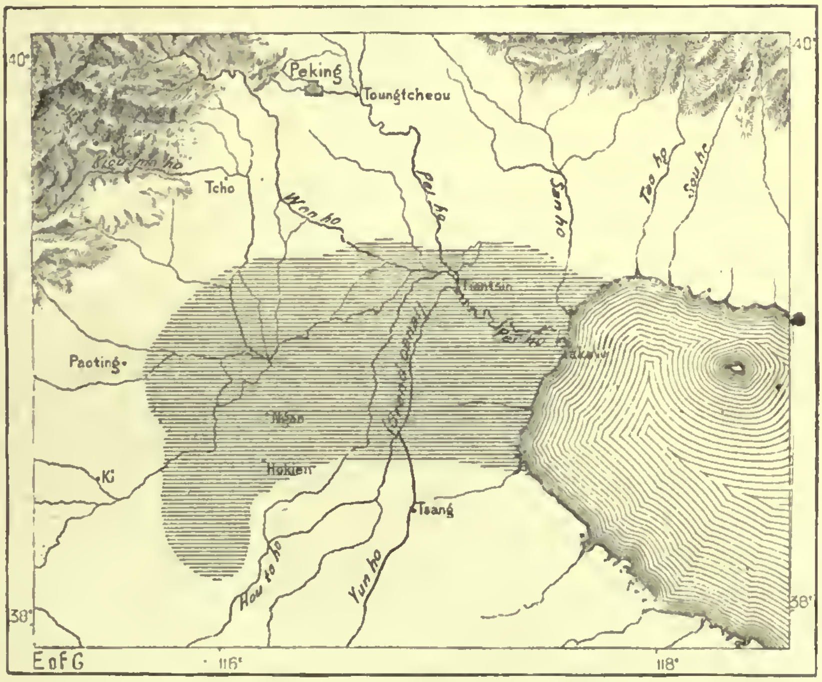
Basin of the Peï-ho—Province of Pechili.

The region of China proper, in which the capital is situated, forms the northernmost of the eighteen provinces. It even lies at some distance from the

heart of the land, which is comprised between the two great rivers, Yang-tze-kiang and Hoang-ho. During the long epochs of internal peace the seat of empire was naturally established in a central city like Nanking, but the Government was necessarily removed to a more northern position when the Mongol and Manchu nomads began to threaten the land through the valley of the Peï-ho. The invaders, when successful, also willingly fixed their head-quarters in the same region, whence they could receive help from the kindred tribes, and whither they could take refuge in case of disaster. From these causes Peking has, with little interruption, remained the imperial residence since the tenth century. It lies, in any case, in the same natural region as the southern cities, being separated by no

Fig. 70.—Range of the Floodings of the Lower Pechili.

Scale 1 : 3,000,000.



60 Miles.

hills or uplands from the plains watered by the Yellow River. From Pechili to Honan, Kiangsu, and Nganhwei, the changes of climate, vegetation, and inhabitants are very gradual, and in the density of its population Pechili itself rivals the more central provinces. According to the official census taken previous to the Taïping invasion, the change in the course of the Hoang-ho, and the great famine, it contained 37,000,000 souls in an area of little over 49,000 square miles.

Washed on the east by the Yellow Sea, Pechili is limited north and west by the scarp of the Mongolian plateaux. Here the ranges run mainly south-west and north-east, parallel with those of the Liaotung peninsula and Shantung. Their streams, after following for some distance the line of the upland valleys, force their

way somewhat abruptly through side fissures down to the plains. In the highlands comprised between the gorges of the Peï-ho and Wen-ho, which water the Peking district, scarcely any summits reach an elevation of 6,700 feet, but south of the Wen several rise to 8,000 and upwards, while according to Bretschneider the snowy peaks of the Siao-Utaï-Shan ("Little Five-crested Mountain") attain an altitude of 12,000 feet.

The coast-line, which stretches for about 300 miles from the mouth of the Liao-he to that of the Peï-ho, formerly ran parallel with the inland ranges, but has gradually been modified by alluvial deposits. An extensive semicircle of new lands has even been formed at some distance from the coast by the Laomu-ho, which collects all the streams from the south-east corner of Mongolia. The whole region of the Lower Peï-ho was at one time a marine basin, which has scarcely yet been completely filled in by the sedimentary matter washed down from the interior. Numerous lagoons or swamps still cover large tracts, and the slope of the land is so slight that at times the whole country, for a space of 6,000 square miles, is converted into a vast lake from 2 to 6 feet deep. On these occasions the crops are destroyed, the land wasted by famine, the rivers and canals diverted from their course. Thus the Wen-ho, which formerly formed the northern section of the Grand Canal between Tientsin and the Yang-tze, has recently ceased to be navigable. Nearly all the names of the villages bear evidence to the constant shifting of the streams in this low-lying region.

The inhabitants refer the inundations to the anger of a black and green dragon, who must be propitiated by offerings, while the Europeans attribute them, on insufficient grounds, to a subsidence of the land. But the direct cause of the evil must be traced to the destruction of the forests on the highlands where the streams take their rise. The heavy summer rains, being no longer retained by the vegetation, sweep in foaming torrents down the slopes to the Tientsin depression, where they are collected too rapidly to be discharged through the single channel of the Peï-ho. To the disappearance of the woods is also due the increased violence of the *kua-fung*, or "dust storms," so destructive to the crops and injurious to the health of the people. All these evils have driven the natives to emigrate in hundreds of thousands to Mongolia and Manchuria, where they have formed many flourishing settlements.

Topography—Peking.

The chief city in the province is the imperial capital, *Peking*, pronounced Peting or Betzing in the Mandarin dialect. The term means "Northern Residence," in opposition to Nanking, the former "Southern Residence." It was so named at the beginning of the fifteenth century by an emperor of the Ming dynasty, but the name is known in China only to the learned. The people call it simply Kingcheng, or "Residence," which is also the meaning of the official name Kingtu. Amongst its numerous other designations was the Mongolian Khan-balik (Cambaluc), or "City of the Khans," imposed upon it by the northern conquerors, and introduced into Europe by Marco Polo.

VIEW TAKEN FROM THE SUMMER PALACE, PEKING.

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Peking stands in the middle of a plain scarcely 120 feet above sea-level, and a little south-east of the last spurs of the Mongolian escarpment. It is intersected by two rivulets, which flow thence for 12 miles eastwards to the Peï-ho. The still more copious Wen-ho, which at one time flowed almost under the walls of the city,

Fig. 71.—Successive Displacements of Peking.

Scale 1 : 135,000.

is now 9 miles farther west, where a strong embankment prevents it from flooding the plains of Peking. The Wen-ho has frequently shifted its bed, and in the plains numerous marble bridges still cross its old channels, now flushed only in the rainy season.

Peking covers an area of some 16,000 acres, or about four-fifths of Paris within

the fortifications. But this space is far from being completely occupied. The imperial quarter and the residences of the princes are surrounded by extensive gardens, kiosks, and abandoned buildings, and even the Chinese quarter is occupied by houses for a distance of little over a mile in the direction from east to west. Elsewhere the enclosed space is covered by extensive waste grounds, interspersed with swampy tracts, old graveyards, and fields. Here are also the parks of the Temples of Heaven and Agriculture, while ruined structures also take up much

Fig. 72.—The High Street, Peking.

space. Hence Peking would seem to be inferior in population, not only to the large cities of the central provinces, but even to its own seaport of Tientsin. Bretschneider thinks it can scarcely have more than 500,000 inhabitants, so that instead of rivalling London, as was formerly supposed, it would seem to be eight times smaller than the British metropolis. Hitherto the Government has declined to publish the statistics of the place, although all the materials are available.

Peking consists of two cities, separated from each other by a lofty inner wall.

The northern, which forms a regular square, is the "Tatar" or "Manchu;" the southern, the Chinese town. This quarter was formerly a mere suburb, which in the sixteenth century was enclosed by an imposing earthen rampart faced with bricks, 50 feet high, flanked by square towers at intervals of 200 yards, and broad enough on top for carriage traffic. The walls are separated by a moat from the outer gardens and some wretched suburbs straggling into the country. The

Fig. 73.—The Temple of Heaven, Peking.

Chinese town, which, if not the more populous, is the more industrious of the two, resembles a large camping ground or market-place rather than a city properly so called. The irregular open spaces are obstructed with carts and tents, while the thoroughfares are bordered by hollow footpaths little better than muddy quagmires in wet, and sand-heaps in dry weather. The foul liquid of some open drains is used to water the streets, and at one of the most crowded cross-roads

the headsman and his assistants are constantly occupied with their sanguinary office.

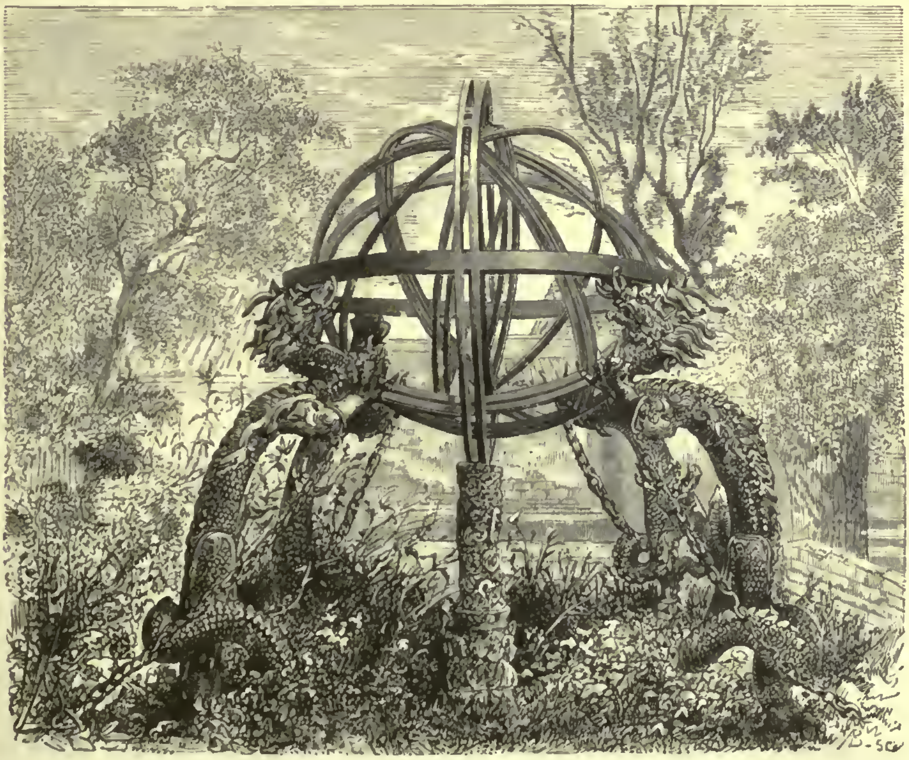
Although more regularly laid out, the Manchu town is scarcely superior to the Chinese except in the neighbourhood of the foreign embassies and along the triumphal avenues, where the canals are crossed by marble bridges adorned with symbolic animals. Formerly the inhabitants of the two quarters lived quite apart, but the races have gradually become intermingled, while the trade of the Manchu town is now largely monopolized by the Chinese proper. Several thousand Mohammedans, mostly artisans and workers in metal, are distributed amongst both communities, and there are also some native Christians, largely engaged in the clock and watch trade, taught them by the missionaries during the last century.

In the heart of the Manchu city is the so-called "Yellow" quarter, also within an enclosure with four gates facing the cardinal points. This is the sacred city, in which stands the imperial palace, the only building in China faced with yellow porcelain. Most of the space, from which the public are rigorously excluded, is occupied with an artificial lake, groves, and shady avenues. Of almost equal extent are the two famous Temples of Heaven and Agriculture, both situated in the midst of extensive grounds at the southern extremity of the Chinese quarter. The Temple of Heaven, with its double roof, stands on a terrace approached by marble steps, and is decorated with enamelled porcelains and woodwork, whose bright red, blue, and golden tints contrast agreeably with the surrounding green vegetation. The Temple of Agriculture, of smaller size, but more elevated, and surmounted by three superimposed roofs, is encircled by a forest of carved pilasters ornamenting the balconies and steps. Close by is the field where the Emperor and imperial princes assembled every spring to guide the ivory and gold plough while invoking the blessings of heaven and earth on the fruits of the land. But since the triumphant entry of the allies into the capital this ceremony has fallen into abeyance. The Temples of the Earth, of the Sun and Moon, and the other sanctuaries, where are celebrated the solemn rites of the national religion, lie beyond the walls of the Manchu town. But just inside the ramparts, and near the Temple of the Sciences, stands the old observatory of the Jesuit missionaries, with its curious bronze astronomic instruments of native workmanship, which form the finest known collection of Chinese bronzes. The Russian observatory at the north-east corner of the enclosure contains a valuable Chinese library, and in the Lazarist mission is a rich natural history museum formed by Armand David. But the magnificent imperial library has been to a large extent dispersed. Under the Ming dynasty the Government maintained schools in which were taught Siamese, Burmese, Persian, Turki, Tibetan, and two dialects of the south-western wild tribes. But since the "Opium War" the ministry have discovered that there are other languages of more importance than those of Indo-China and Central Asia. Hence in the Government school attached to the Foreign Office young mandarins are now taught English, French, German, Russian, and Manchu.

As a trading-place Peking is scarcely as important as in the time of Marco

Polo, when "of silk alone a thousand carts entered every day in the year." Nevertheless the road between the capital, with its port of *Tungchew* on the Peï-ho, is still daily thronged with waggons, pack animals, and wayfarers. The two cities are also connected by a canal about 15 miles long, which is frequented by junks laden with opium, wine, and other produce. Tungchew is usually crowded with craft, at times forming a floating bridge all the way to Tientsin. But for about three months in the year the navigation is blocked by ice, and then the traffic between Peking and Shanghai is carried on by the wretched overland route. The only good roads radiating from the capital are those running to the Summer

Fig. 74.—Celestial Sphere in the Old Observatory, Peking.



Palace and south-westwards to the famous Luku-kiao bridge over the Wen-ho. This magnificent structure, with its twenty-four arches, as described by Marco Polo, gave way in the seventeenth century, and was restored by the Emperor Kang-hi, who adorned it with two elephants and two hundred and eighty lions in marble.

The chief industries in the neighbourhood of the capital are market gardening and coal mining. The district abounds in carboniferous deposits, and the rich mines of the Tsing-shui valley are already being actively worked. The anthracite, however, still continues to be brought by pack animals to the centres of population, and when some English speculators lately proposed to construct a railway from

Peking to the productive Chaitang mines, they received from the Government officials the usual answer: "Mules have hitherto sufficed; they will still suffice." Since the days of Marco Polo not even a good road has been laid down, so that it is found more profitable to import good English coal, and even firewood, through Shanghai from California. South-west of Peking there are also some productive marble quarries and magnetic iron mines.

South of the capital, and separated from it by a marshy plain, is the extensive park of Nanhai-tze, occupying about 80 square miles within a fortified enclosure some 40 miles in circumference. Numerous villages, cultivated tracts, and military stations are scattered over these woodlands, from which Europeans are jealously excluded. Amongst the herds of deer here maintained Armand David discovered a new and remarkable species, the *Elaphurus Davidianus*, some specimens of which are now preserved in Europe. In the neighbouring hills was also found the *Macacus Chelicnsis*, a curious species of monkey marking the northernmost range of these animals in Asia. But a still more famous park is the Yuangming-yuan, or "Splendid Garden," better known to Europeans as the park of the "Summer Palace." This imperial residence was plundered by the troops of the allies in 1860 after the Chinese army had been dispersed at Palikiao. Those who first penetrated into the interior might have fancied themselves in a public museum, such was the profusion of artistic objects in jade, gold, silver, ivory, and lacquer-ware lying about. Large quantities of these curiosities were broken, melted down, or otherwise dissipated; but enough remained to enrich many private collections in Europe. The gold and silver ingots were distributed amongst the troops according to their rank; but the great bulk of the precious metals is supposed to have been concealed. Since this event most of the buildings have remained in ruins, one palace only having been rebuilt for the Empress Dowager. From the summit of the neighbouring Hiang-shan, a wooded hill about 1,000 feet high, a varied prospect is commanded of the surrounding gardens, with their lakes, temples, bridges, kiosks, glittering pagodas, and in the hazy distance the sombre outlines of the massive ramparts enclosing the imperial capital.

At the northern foot of these heights are the famous sulphur springs long frequented by the Chinese, and now visited also by European invalids. These waters lie on the route to the renowned sanctuary of Miaofeng-shan, where the monks show a spot whence young men throw themselves down a precipice "through filial love," thus hoping to insure a long life for their parents. Most of the numerous Buddhist monasteries scattered over the Peking district have fallen to ruins, their bronze and plaster statues being now exposed unsheltered from sun and rain, whilst their walls are disappearing amidst a rank vegetation. Of these monasteries the largest and most celebrated is the Hoang-sze, or "Yellow Convent," where a "living Buddha" has taken up his abode. Farther west is the Temple of the "Great Bell," containing one of the largest bells in the world, which is nearly 27 feet high and covered with 35,000 exquisitely chased letters representing a complete volume of Buddhist liturgy.

The Peking district is also strewn with marble monuments, mostly family tombs,

nearly all in the form of huge turtles, with inscriptions on their carapace. The approaches to the burial-places of the nobles are adorned with colossal effigies of lions in bronze or marble. But more attractive to Europeans are the so-called "Portuguese" and "French" cemeteries, where repose the remains of Ricci, Verbiest, Amiot, Gaubil, Gerbillon, and other famous missionaries, to whom we are so largely indebted for our knowledge of China and its inhabitants.

The tombs of the Ming dynasty lie some 24 miles from Peking, in a solitary amphitheatre amongst the Tienshu hills, approached by a gorge, which terminates

Fig. 75.—Tientsin.
Scale 1 : 2,600,000.

30 Miles.

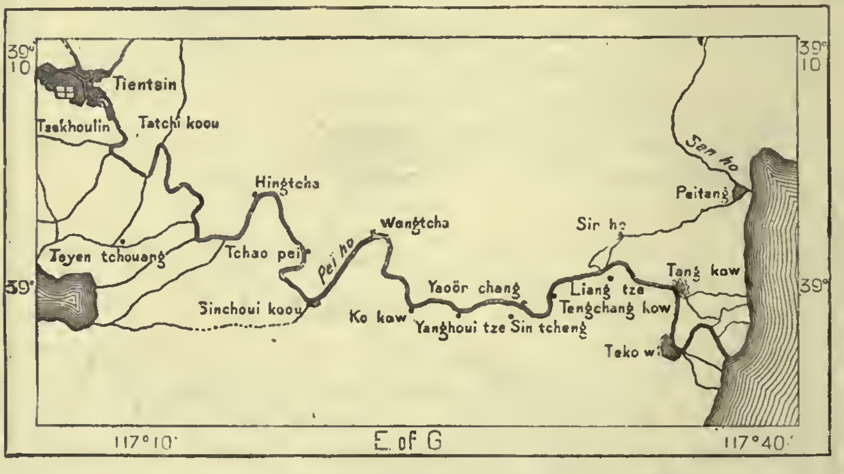
with a magnificent marble portal. Of these tombs the most noteworthy is that of the Emperor Yung-le, at the head of a vast avenue of marble statues representing twelve high officials, priests, or warriors, and twelve pairs of animals, elephants, camels, lions, horses, and the fabulous unicorn and kilin, some kneeling, others erect. Although some exceed 13 feet in height, all are cut in a single block; but being distributed over too large a space without an eye to the perspective, or to the general effect, the result is not satisfactory. The body of the Emperor lies at the end of a long gallery under the natural pyramid of the mountain, and near it is the sacrificial temple resting on sixty pillars of the nanmu laurel, each 43 feet high

and 10 feet in circumference. The blocks of marble required for these and other imperial tombs were conveyed along specially constructed roads on huge trucks with sixteen wheels, and drawn by six hundred mules.

Tientsin—that is, "The Ford of Heaven"—is the seaport not only of Pechili, but also of Mongolia and the Russian province of Transbaikalia. It is happily situated in an extremely fertile district, on a navigable river at the converging point of several natural highways formed by the rivers of the interior. Thanks to the development of its foreign trade, it has become one of the great cities of China, already surpassing the imperial capital itself in population, which, according to the consular reports, is now close upon a million. The imports are chiefly rice, woven goods, opium, European hardware, taken in exchange for raw cotton and wool, skins, furs, plaited straw, and camel's hair. Here are the Government granaries for the supply of Peking, and the salt depôt for the whole of North China. After

Fig. 76.—The Lower Peï-ho.

Scale 1 : 1,550,000.



12 Miles.

Tientsin became a treaty port in 1858, most of the navigation of the Peï-ho, here commonly known as the Hai-ho, or "Ocean River," fell into the hands of the English; but since then the Chinese have gradually recovered the first place. Besides the river junks the natives now own vessels of the European type, and even numerous steamers, which ply daily on the Peï-ho above and below Tientsin.

A few miles farther down is the European settlement of *Tzekhulin*, in its street architecture and general appearance quite a Western town, where nearly all Europeans reside who have business relations with Tientsin. Even in the Chinese city there are several buildings in the European style, amongst them the new hospital and the ruins of the Roman Catholic cathedral, destroyed during the terrible outbreak of 1870, when all the French priests and nuns with one exception, besides some other foreigners, were massacred. A cotton-spinning factory has here been recently established, and some 60 miles to the north-east a horse tramway now connects

NAN-KOW, SOUTHERN GATE OF THE GREAT WALL—VIEW TAKEN FROM PATA-LING.

the Kaïping coal mines with the port of Lutaï, on the river Peïtang, at the head of the deep-sea navigation. Works have also been undertaken to improve the waterway below Tientsin, where the bar has only 4 feet at ebb, and about 12 feet at flow. The approach to this important strategical point is now defended by formidable lines at Sincheng above the delta, and by the forts of Taku ("Great Mouth"), near the main entrance of the river. These forts, which fell so easily to the allies in 1858 and 1860, have since been reconstructed, armed with the heaviest ordnance, and completed by a vast entrenched camp and docks for the Government gunboats. *Peïtang*, at the mouth of the river San-ho, just north of the Peï-ho, has also been strongly fortified.

On the route leading from Peking through the Kupeï-kow Gate in the Great Wall to Manchuria there are several towns, amongst them the administrative city of *Yungping-fu*, which, however, is a small place. West of the Kupeï-kow Gate the Peï-ho valley is approached from Mongolia by the Kwan-kow Gate, formerly a point of great strategic importance, through which all the nomad invaders penetrated into China. Hence this highway is defended at various points by strong lines, some of which have been mistaken for portions of the Great Wall itself. But here the most remarkable monument is a triumphal arch erected at the southern entrance of the Kwan-kow Pass, and bearing an inscription in six languages—Sanskrit, Chinese, Uigur, Mongolian, Tibetan, and Ninchi, or ancient Manchu, the last mentioned being the only known specimen of that tongue. The chief importance of this highway, however, is now due to the traffic of the Russian caravans and postal service, which follow this route between Kiakhta and North China. The convoys of brick tea for the Siberian market start directly from Tungchew, on the Peï-ho, without passing through Peking, which they leave to the south-west.

In the upland valleys watered by the tributaries of the Wen-ho the most important place is *Kalgan* (Changkia-kow), guarding one of the gates of the Great Wall leading to Mongolia. The military quarter, with its forts and barracks, is built up against the wall itself, while the trading quarter lies 3 miles farther south, beyond which are the houses of the Protestant missionaries and Russian dealers. *Siwan-hoa*, at the entrance of a defile on the route from Kalgan to Peking, is also much frequented by the Chinese and Mongolians. Its imposing ramparts, triumphal arches, and extensive parks date from the time when this place was capital of the empire under the Mongol dynasty. Like *Tatung-fu*, lying much farther to the west and more in the heart of the mountains, Siwan-hoa is conveniently situated in the midst of fertile valleys and rich coal-fields, and does a considerable trade in tobacco and felts. *Kiming*, on the route thence to Kwan-hoa, is the chief postal station for the whole of North China. Its vineyards produce a highly esteemed white wine, which is found only on the tables of the wealthy mandarins.

In the southern section of Pechili, watered by affluents of the Wen-ho and Peï-ho, the largest place is *Paoting-fu*, which has been chosen as the capital of the province and official residence of the Viceroy, who, however, lives mostly in Tientsin. It is regularly built, very busy, and better kept than the imperial capital. The

surrounding plains, which are admirably cultivated, are largely under millet, the staple crop in Pechili. South-west of this place is *Chingting*, near the Shensi frontier, where iron images of Buddha are manufactured for all the northern provinces. The bronze idols in its temples are amongst the most remarkable in the empire, and one of them is no less than 80 feet high.

THE SHANTUNG PENINSULA.

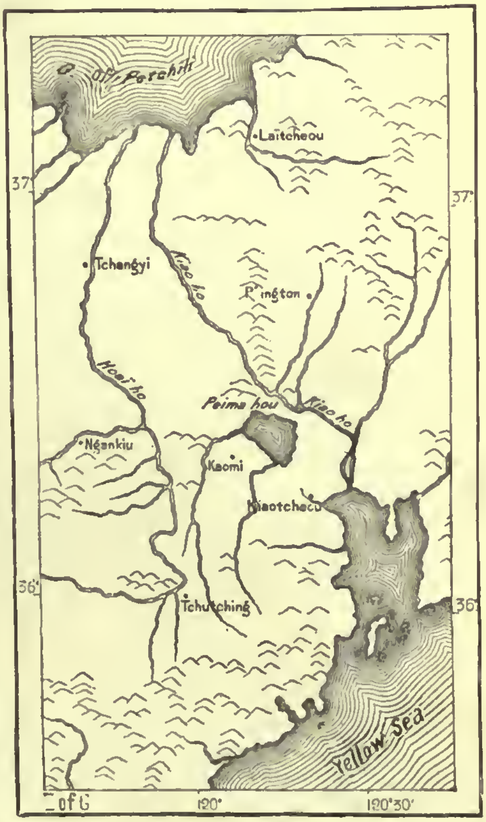
SHANTUNG is a geographical region entirely distinct from the rest of China. This country of the "Eastern Hills," as the term means, consists of two detached masses of mountains and hills, one of which projects far seawards between the Gulf of Pechili and the Yellow Sea, and is limited landwards by extensive alluvial plains deposited in an old marine basin. In this direction the Hoang-ho has shifted its course for ages, washing down its sedimentary matter at one time to the north, at another to the south of the Shantung peninsula. In its general outlines this peninsula resembles that of Liaotung, but is of larger size. Its shores, visited by European vessels for the first time in 1793, on the occasion of Lord Macartney's embassy to Peking, are indented by innumerable little inlets developing a series of regular curves from headland to headland. Some of these headlands are continued by banks and islets for a long distance into the shallow waters of the Yellow Sea. The north coast of Shantung is even connected by a sort of half-submerged isthmus with the southernmost extremity of Manchuria. The mean depth of this marine basin is only about 80 feet, yet most of the inlets of the peninsula are accessible to Chinese craft. The facilities thus afforded for intercourse have largely contributed to the development of the great natural resources of Shantung. The population is said to be here denser even than in Belgium, and from the summit of many hills the whole country as far as the eye can reach presents the aspect of a vast city interspersed with garden plots. The natives are also more robust and energetic, as well as of a more swarthy complexion, than those of the Hoang-ho and Yang-tze lowlands. In the Chefu district and elsewhere they show many graves attributed to a pre-Chinese race.

The Shantung highlands may be regarded as the remains of a plateau denuded and cut up in all directions by small streams. In the north a series of regular rounded eminences stretch along the coast, but nowhere reach an elevation of 3,400 feet. The mean altitude is lower in the south, although here the peninsula, properly so called, culminates with the Lo-shan, an isolated peak rising 3,550 feet above the neighbouring island-studded bay. But towards the west the Ta-shan, or "Great Mountain," famous in Chinese mythology, attains a height of 5,100 feet close to the plains of the Hoang-ho. Ta-shan is the most sacred of the five holy mountains of the empire, the "beneficent king," the "equal of heaven," the "controller of births and deaths," the "arbiter of human destinies." Confucius, born in the neighbourhood, vainly attempted to reach its summit, a temple now marking the spot where he stopped short. Since then the ascent has been rendered easy by a good paved road 12 miles long, with broad shady steps, convenient landing-

places, and palanquin bearers for old and infirm pilgrims. Between these western hills and the peninsula proper a broad depression, stretching from the Gulf of Pechili to the Yellow Sea, was formerly traversed by a navigable canal traced like a river on the old map of the Jesuits. Here also the Peima-hu, or "Lake of the White Horse," would seem to be a remnant of the strait which formerly flowed along this depression from sea to sea.

Nearly all the forests have disappeared from the hills, and the indigenous vegetation has almost everywhere yielded to the useful plants introduced by man. The wild animals have also been mostly exterminated, and little room can even be spared for live stock in this fertile and highly cultivated region. It abounds also in coal-fields, iron ores, gold, and other metals, besides precious stones, including diamonds of small size. The climate, as elsewhere in North China, is characterized by the extremes of heat and cold. But the transitions are effected very gradually and regularly, thanks to the warm marine waters and the shelter afforded by the neighbouring Manchurian and Korean uplands from sudden polar winds. The typhoons also spend their fury in the Yellow Sea before reaching the Gulf of Pechili.

Fig. 77.—Old Shantung Strait.
Scale 1 : 2,000,000.



30 Miles.

Topography.

The largest towns are naturally found on the western alluvial plains, watered by the Hoang-ho and its tributaries, and traversed by the Yun-ho, or "River of Transports," which was till recently navigable. But many of these places are exposed to destructive floodings, while others have been plundered by the Taïping rebels and Nienfei brigands. However, they rapidly recover from such disasters, and *Tungchang*, on the Grand Canal, amongst others, has already resumed its place as one of the great industrial centres of the empire. Farther north *Lintsing* and *Chingkia-kew*, which also suffered severely during the late insurrection, are now flourishing towns, carrying on a large trade with the central provinces, Pechili, and even Mongolia. *Tsinan*, the Chinangli of Marco Polo, and the present capital of the province, also lies west of the mountains in a fertile alluvial district, dotted over with isolated

cones of long-extinct volcanoes. With a circuit of about 25 miles, it is both one of the largest and best-built cities in China, noted especially for its trade in false gems and manufacture of a peculiar silken fabric, woven from the cocoons of a wild silkworm which lives on oak-leaves. Here is a Roman Catholic community of 12,000 souls, besides many Mohammedans, variously estimated at from

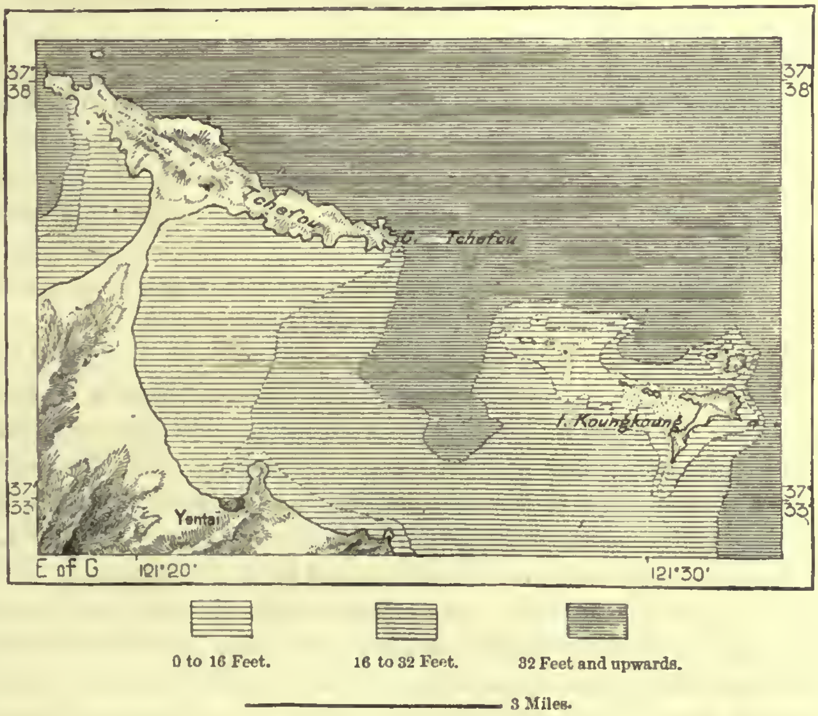
Fig. 78.—Tenochew and Miao-tao Archipelago.
Scale 1 : 193,000.

10,000 to 20,000. Three miles east of Tsinan is a hill consisting of partly magnetic iron ores, and on the Yellow River lies its port of *Lokao*. In the basin of the Yellow River is also situated *Taingan-fu*, the "City of Temples," on the Tawan-ho (Wun-ho), which traverses a district abounding in coal and iron. The chief temple dedicated to the holy mountain, Tai-shan, occupies a large space to the

north of the town, in the midst of a park 30 acres in extent, all the trees of which have been planted by various emperors since the tenth century. When visited in 1869 by Markham there were no less than 70,000 pilgrims assembled in this place from all parts of China. Farther south lies *Yenchew-fu*, in a marshy district traversed by the Grand Canal, formerly capital of one of the nine provinces into which the empire was divided by Yu four thousand years ago, and still the largest place in the south-west of Shantung. This is one of the classic regions

Fig. 79.—Chefu.

Scale 1 : 150,000.



of China, the towns, mountains, and rivers of which figure on almost every page of the old chronicles.

Some 12 miles west of Yenchew-fu is the far-famed city of *Kinfao*, birthplace of Confucius, and still inhabited almost exclusively by his descendants, at least 20,000 of whom bear his name. Although a fine, vigorous race, not one of them seems to have distinguished himself in any way during the twenty-four generations which have elapsed since their common ancestor bequeathed his moral code to the empire. The chief temple raised to his memory is one of the largest and most sumptuous in China, and contains a series of inscriptions dating from all the dynasties for the last two thousand years. The accumulated treasures of vases, bronze ornaments, and carved woodwork form a complete museum of Chinese art. At the entrance of the palace is still shown the gnarled trunk of a cypress said to

have been planted by Confucius, while urns, tripods, manuscripts, and other precious objects, said to have belonged to the philosopher, are preserved in the private apartments of the princely head of the family. The domain of this dignitary, who is a direct feudatory of the empire, is no less than 165,000 acres in extent. When Kinfao was seized by the Taïping rebels, they respected the temple, the palace, and all their contents, and even spared the life of the local governor, contrary to their invariable practice. Near the temple is the grave of Confucius, in the centre of a vast space occupied by the family necropolis. Towards the south-west is another cemetery near the small town of *Tsin-hien*, which for the last twenty-two centuries has received the remains of all the descendants of Mengtze (Mencius), the most renowned disciple of Confucius.

Tsingchew-fu, the old capital of Shantung, lies on the northern slope of the mountains in a valley draining to the Gulf of Pechili. Although much reduced, it is still a large place, and a now almost deserted Tatar quarter recalls the early days of the Manchu conquest. Tsingchew has become a chief centre of Islam in East China, and a knowledge of Arabic is still kept alive in its schools. The surrounding district is extremely productive and densely peopled. The hills in the south-west contain rich coal mines and sandstone quarries, the powdered material of which is sent to every part of China for the manufacture of glass.

Although ranking as a simple *hien*, or "town of the third class," *Wei* is really the most important place in Shantung. It is conveniently situated in the plain which separates the two upland regions of the province, and enjoys easy communication with the northern and southern shores of the peninsula. To *Kiaying* and other ports on these shores it forwards the silks, tobacco, coal, iron, saltpetre, and other produce of the country, for which it has become the chief emporium. The long-projected railway to the coast is still opposed by the Government; but it is connected by carriage roads with the southern ports, with the great market of *Chewtsun*, with the gold mines of *Pingtu*, and with *Lachew*, on the Gulf of Pechili, noted for its rich deposits of soapstone. *Hoang-hien*, in the northern section of the peninsula, does a large forwarding trade, especially to Manchuria, through the port of *Lungkew*, and with Europe through *Tengchew*, recently made a treaty port. The harbour of Tengchew was formerly deep enough for Chinese craft to penetrate into the interior of the city; but they are now excluded, while large vessels are obliged to anchor a long way from the shore. Hence the foreign merchants have removed most of their business to the more commodious port of *Yentaï*, the "Smoky," so named from a beacon-fire which formerly served as a signal to warn the people of the coast from the Japanese pirates. But the place is better known by the name of *Chefu*, from a promontory protecting the harbour on the north, and commanded by a cone 1,000 feet high. In summer Chefu is the "Scarborough" of the foreign communities in China. Other seaports at the eastern extremity of the peninsula are *Weihai*, with a good harbour; *Yungching*, and *Shitaw*, both doing a brisk trade with Korea.

On the southern slope of the peninsula the chief places are *Laiyang*, on a

river flowing to the port of *Tingtsi; Tsimi,* a depôt for grain, fruits, pigs, and other agricultural produce; *Kaomi, Kiaochew,* and *Yichew,* the last with a considerable Moslem community, and productive coal mines in the neighbouring hills.

THE HOANG-HO BASIN.

Provinces of Kansu, Shensi, Shansi, and Honan.

The region drained by the Hoang-ho, or Yellow River, comprises in Tibet and China proper a total area of some 600,000 square miles, or about three times the extent of France. Yet it ranks only as the second river basin of the empire, and there were even times when it formed merely a tributary system, discharging a portion of its waters into the Yang-tze-kiang. Nevertheless it presents a striking contrast to this great stream in the salient features of its estuary and winding course, no less than in the character of the lands and peoples fringing its banks. To mark this contrast the natives have identified the twin streams with the two male and female principles of heaven and earth (*Yang* and *Yin*), which divide the world between them. The Hoang-ho is the female river, devoted to the earth, and designated by the name of *Yellow,* which the inhabitants of the "Yellow Lands" naturally regarded as pre-eminently the terrestrial colour.

Both streams rise on the same inland plateau, and in their lower course traverse the same alluvial plains. But in their middle course they are deflected north and south into regions far distant from each other, and differing greatly in their physical aspect. After emerging from the upland pasturages of the mysterious and still unexplored "Starry Lakes," the Hoang-ho escapes from the highlands through formidable gorges, but without describing the vast bend which is traced on most maps. Swollen by numerous torrents from the Kuku-nor Mountains, it reaches the verge of the desert, already a large stream. Here it is suddenly deflected northwards along the scarp of the Mongolian plateaux, and even beyond China proper round the Ordos country, and through a gorge in the Ala-shan range, beyond which it throws off several shifting channels intermittently flooded according to the extent of the annual inundations. When visited by Prjevalsky in 1871 the main stream, 1,300 feet broad, lay to the south. But it was of recent formation, and lateral branches were at that time winding through the plains as far as the foot of the In-shan range. To these displacements of the stream is probably due the legend that the Hoang-ho disappears altogether in the sands north of the Ordos peninsula, and again reappears among the rocks lower down.

Below this half-lacustrine region the stream, resuming its easterly course, impinges against the gneiss hills forming towards the south-east the outer scarp of the Mongolian plateau. Pumpelly thinks he has discovered the traces of an old bed, through which the Yellow River formerly flowed along the base of the plateau. A string of lakes connected by narrow depressions would seem to indicate the former course of the stream, when it discharged through the Peï-ho into the

Yellow Sea. But it is now deflected southwards through two parallel chains, thus completing the circuit of 1,200 miles which it describes round Ordos and the province of Shensi. The formation of this new bed is perhaps referred to in the Chinese legend of the contest between Kingkung and Chwanchew for the empire

Fig. 80.—Trans-Ordos.
Scale 1 : 2,300,000.

of the world. "In his rage Kingkung butted with his horn against Mount Puchiao, which supports the pillars of heaven, and the chains of the earth were broken. The heavens fell to the north-west, and the earth was rent asunder towards the south-east."

Below these ranges the middle course of the river is abruptly terminated by a sharp bend towards the east at the confluence of the Wei. In some respects the Hoang-ho, notwithstanding its greater volume, might even be regarded as the tributary of the Wei, which maintains its original direction throughout its entire course, as does the Saône after its junction with the Rhone in France. The Wei is in any case its largest affluent, and even more important as a navigable highway.

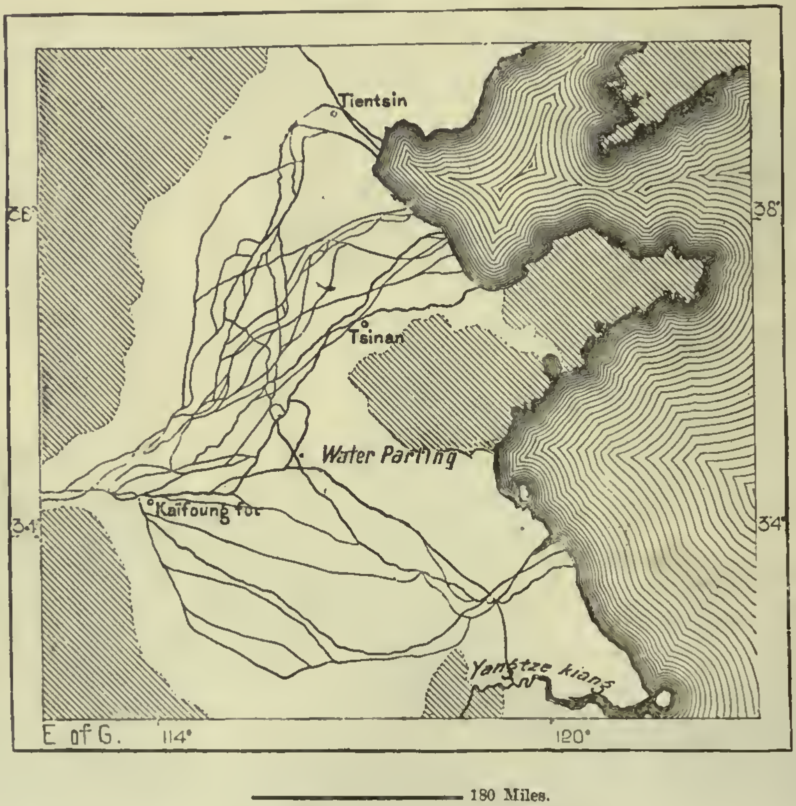
Fig. 81.—Cliffs of Yellow Earth on the Hoang-ho.

Thousands of flat-bottomed craft ascend its stream to within half-way of the Lanchew bend, where the Hoang-ho is deflected towards Mongolia.

Both rivers wash down large quantities of sedimentary matter, estimated in 1792 by Staunton at one-fiftieth of whole volume for the united stream. This is three or four times in excess of the average even of such rivers as the Ganges and Peï-ho, which carry down an unusual amount of alluvia. These deposits are one of the great sources of danger to the riverain populations. Natural embankments are thereby gradually formed along the course of the stream, whose bed is raised,

and new channels formed during the floods, which often cause widespread ruin. Like the Nile, Po, and Mississippi, the Yellow River thus flows occasionally at a higher elevation than the surrounding plain, although not so high as has been represented by the terror-stricken fancy of the inhabitants. A vast system of embankments has been erected on both sides to keep the stream within its bed during the rising of its waters. Above Kaifung-fu the two main dikes on the left side, each 72 feet high, run parallel, and from 3,500 to 2,700 yards from the natural bank of the river, and the intermediate space is cut up into rectangular sections by transverse mounds. The more exposed districts are thus divided into a

Fig. 82.—Shiftings of the Hoang-ho during Three Thousand Years.
Scale 1 : 10,000,000.

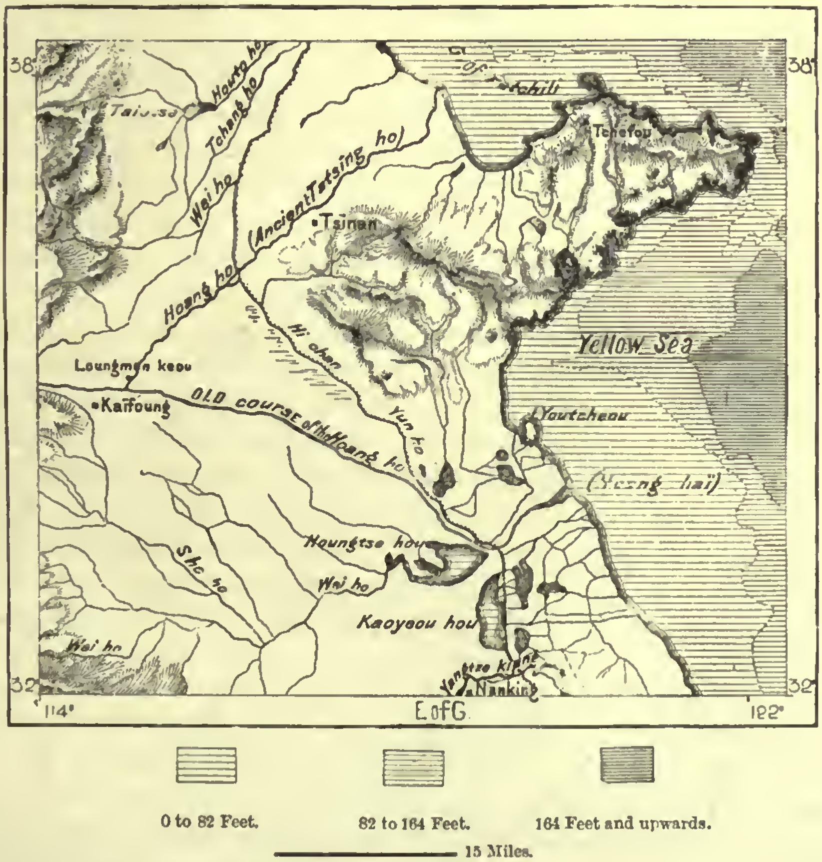


number of independent tracts arresting the overflow, and enabling the people to raise their crops in comparative security. But this very system itself, maintained by the constant labour of 60,000 hands, has the inevitable result of increasing the height of the banks by the rapid deposits of alluvia in the lateral sections. The difference in level between the river bed and the low-lying plains becomes proportionably increased, and the higher the embankments are carried the more dangerous becomes the stream. Nevertheless the risk may be diminished by the construction of canals conveying the overflow to one or other of the lacustrine depressions in Kiang-su north of the Yang-tze-kiang. Thus in 1780 the

Emperor Kienlong caused a canal 60 miles long to be constructed in fifteen months, which diverted half the discharge of the Hoang-ho into Lake Hangtzeu. But in spite of all precautions great disasters are occasionally caused by the bursting of the dikes, when the crops of whole provinces are swept away, and millions become a prey to famine and pestilence. For China the Hoang-ho still remains the Nih-ho, or "Rebellious River," as it is called by the old chroniclers. The riverain populations are always at the mercy of invading hosts, or even of predatory bands strong enough to seize and open the sluices. In 1209 one of the few defeats experienced

Fig. 83.—Recent Shiftings of the Hoang-ho.

Scale 1 : 8,000,000.



by Jenghiz Khan was due to this cause. In 1642 a mandarin submerged the city of Kaifung-fu, with its 200,000 inhabitants, and later on the Emperor Kang-hi in the same way destroyed half a million of his subjects.

The lowlands, subject to the shifting course of the Hoang-ho, comprise the vast region stretching from the mouth of the Peï-ho to that of the Yang-tze-kiang. The stream thus oscillates to the right and left over an area some 550 miles long north and south, presenting within these limits changes elsewhere unrivalled in extent and importance. These disastrous shiftings, at times laying waste a region as large

as Great Britain, are due to the Shantung uplands, which arrest the direct easterly course of the stream, deflecting it either to the right or to the left, and thus causing it to flow at one time north to the Gulf of Pechili, at another south-eastwards to the Yellow Sea. Since the mythical times of Yu, said to have flourished some forty-two centuries ago, these complete or partial changes have been regularly recorded by the native annalists. For the last two thousand five hundred years the bed of the Lower Hoang-ho has been displaced as many as nine times, when one or more fresh channels have been excavated in the alluvial plains, and each of these events has been attended by the partial depopulation of the land.

In the middle of the present century the Yellow River flowed south-eastwards below Kaifung-fu to the coast about midway between Shantung and the Yang-tze estuary. A small branch was even thrown off through a series of lakes to the latter basin. But in 1851, when the Taïpings began their ravages, the inhabitants being unable to keep the dikes in repair, the stream made a breach over a mile broad through its left bank near the village of Lungmenku. Still the old bed was not completely dried up, and the new course northwards to the Gulf of Pechili was not definitely established till the year 1853. Even then the channel was not thoroughly excavated, and at many points the stream preserved the aspect of a permanent inundation, covering a space from 10 to 15 miles in extent. It thus overflowed into the bed of the Tatsing-ho, formerly an independent river. Along the old course most of the embankment works remained intact, while the villages were converted into heaps of ruins, the cities deserted, and the cultivated lands allowed to lie fallow. The change was, in fact, a twofold disaster, for, on the one hand, it caused fertile tracts to be submerged, while on the other districts were necessarily abandoned whose productiveness depends on the irrigating canals derived from the river. The direct evil caused in the region at present traversed by the Hoang-ho is a small matter compared with the ruin indirectly occasioned by the withdrawal of the water which fed these canals. Hence the inhabitants of the southern districts have repeatedly petitioned to have the stream restored to its old bed, while those in the north have adapted themselves to the altered conditions. Numerous villages have sprung up, and embankments have been constructed for nearly 100 miles on both sides, regulating the course of the river in its new channel, which, however, still varies in width from a few hundred yards to 2 miles. But after the loss of millions of lives a fresh disaster was threatened in 1870, when a breach was opened in the embankment on the right side above Kaifung. On this occasion the overflow took the direction of the Yang-tze-kiang through the Kuln-ho, the Sha-ho, and Lake Hang-tzew, west of the old bed. Through numerous other smaller openings on both sides the Hoang-ho would seem to still send contributions to the Yang-tze, the Hoaï, and Peï-ho, a fact which explains the remarkable diminution of volume observed by recent travellers in its lower course.

Near the Gulf of Pechili the stream winds through a marshy tract, which was evidently at one time a marine basin. The town of Putai, said to have been within 600 yards of the coast twenty-one centuries ago, now lies over 40 miles from the sea, and all the surrounding lands are still saturated with saline particles.

Owing to the narrowness of the navigable channel, large vessels are now obliged to anchor some distance off the bar, although it has a depth of 7 feet even at low water. The cargoes, transhipped to smaller craft, are carried to Tiemen-kwan, 24 miles above the mouth of the river, beyond which point the "ungovernable Hoang-ho" has almost ceased to be available for navigation. Its upper course in Kansu might be navigable by small boats; but here the natives prefer the road to the river for transporting their produce.

The Grand Canal and Lower Hoang-ho.

The "Grand Canal" so often spoken of by travellers, especially in the last century, is one of the great monuments of human industry, although, perhaps, less wonderful than it may seem to be at first sight. It is not a cutting, like so many European works of the kind, carried by a series of locks over extensive tracts at different levels, but simply consists of a string of abandoned watercourses, lakes, and swamps, all connected together by short artificial channels. Hence it has almost everywhere preserved the aspect of a winding river, constantly varying in width. As related by Marco Polo, the Emperor Kublai Khan, towards the end of the thirteenth century, created the Yun-ho, or "River of Transports," as it was named, mostly by connecting river with river, lagoon with lagoon. Even before that epoch goods were conveyed by water and across a series of difficult portages from the Yang-tze to the Peï-ho basin. But although the course of the canal was thus already indicated and partly constructed by nature, none the less enormous are the sums that have been spent on the formation, and especially on the maintenance, of this great navigable artery. Thousands of hands have been constantly employed in dredging, embanking, protecting the exposed sections from the fury of the winds, so that a regular canal constructed on the European principle would have probably been less expensive in the end. The Grand Canal, which is mainly fed by the Hoang-ho, the Wan-ho, and other streams from Shantung, has in recent times lost much of its importance, and is at present in such a bad state that the navigation is actually interrupted at some points. Since the introduction of steam Peking and North China receive their supplies chiefly from the sea, so that the inland navigation for which the canal was constructed has no longer the same commercial and economic significance. It still, however, presents many advantages for the local traffic, and it may be hoped that the work of restoration, already begun at the Tientsin end, will soon render this artery navigable by steamers throughout its entire length, from the Peï-ho to the Yang-tze basin.

According to one estimate the mean discharge of the Hoang-ho is about 80,000 cubic feet per second, or nearly equal to that of the Nile. The sedimentary matter brought down in its turbid waters is slowly yet perceptibly diminishing the basins of the Gulf of Pechili and Yellow Sea. Staunton and Barrow have calculated that these alluvia would be sufficient to create, in twenty-five days, an island half a square mile in extent and 120 feet thick. They have further calculated that in about twenty-four thousand years the Yellow Sea will have entirely disappeared,

just as the inland seas west of Shantung have already become dry land. Its navigation is already much obstructed by the shifting sand-banks, as well as by the dense fogs in which these shallow waters are frequently wrapped. The Chinese limit the term "Yellow Sea" to the portion discoloured by the alluvia, applying

Fig. 84.—Yellow Sea.
Scale 1 : 7,000,000.

the expression "Black Sea" to the marine waters preserving their natural purity.

The extensive plains stretching between the Lower Hoang-ho and Yang-tze are traversed by the sluggish Hoaï, which, notwithstanding its great length and volume, can scarcely be regarded as an independent river. From age to age it has never ceased to oscillate from right to left in search of a fixed channel. At one time it flowed to the Hoang-ho, at another to the Yang-tze, while occasionally throwing off branches in both directions. At present it discharges into Lake Hang-tzew and the other lacustrine basins, which are the remains of the ancient inlet penetrating northwards between Shantung and the mainland.

The Tsing-ling and other Ranges.

The central highlands about the head-streams of the Hoang-ho are still lofty enough to supply alluvial deposits which may some day convert the Archipelago of Japan into an Asiatic peninsula. Extensive ranges rooted westwards in the Tibetan plateaux form the water-parting between the Hoang-ho and Yang-tze basins, and these are succeeded farther north by other less elevated chains forming the outer scarp of the Mongolian terrace lands.

The main range, which may be regarded as an eastern continuation of the Kuen-lun, is separated from the Kuku-nor highlands by the deep gorge of the Upper Hoang-ho. South of Lanchew-fu this range takes the name of Siking-shan, and is here broken by the valley of the Tao-ho, an upper affluent of the Yellow River. But east of this point its snowy peaks stretch away to the south of the deep valley of the Wei-ho, where it is known as the Tsing-ling, or "Blue Mountains." In the upper valley of the Han, north of Hanchung-fu, this section is crossed by passes practicable throughout the year for mules. The pass chosen by the naturalist Armand David, in the winter of 1873, is 6,300 feet high, and runs along the west side of the famous Tapei-shan, whose snowy crest has an extreme elevation of from 12,000 to 13,000 feet, while Richthofen assigns a mean altitude of 6,500 feet to the main range. In its central section the Tsing-lin g consisting of granites and old schists, is so difficult to cross, that travellers generally prefer to turn its eastern extremity through one of the depressions which here separate the great bend of the Hoang-ho from the valley of the Han, a tributary of the Yang-tze. Northwards the Tsing-ling terminates in the granite mass of the Hoa-shan, which overlooks the triple confluence of the Hoang-ho, the Wei-ho, and Lo-ho, over against the imposing Fungtiao-shan, traditionally said to have been separated from it by an earthquake.

Like the Pyrenees, which they resemble in their general aspect and elevations, the Blue Mountains form a parting line between two vegetable and animal domains. The *chamœrops* palm grows only on the slopes, but on the north side the paulovnia, catalpa, and magnolia are found intermingled with the spruce and oak. Here also flourishes the red birch, while a species of rhododendron attains the proportions of a tree. Some of the woodlands still harbour a few carnivora, and the northern and southern fauna are represented by several species, among which are the chamois, antelope, monkey, and a wild ox protected by religious scruples from the native hunters.

The parallel treeless ridges of the Funiu, which form an eastern continuation of the Tsing-ling, attain here and there an elevation of over 6,500 feet, but their mean height scarcely exceeds 2,600. Like the Tsing-ling, they form a parting line between the Hoang-ho and Yang-tze basins. In a single day the traveller passes from one region to another, presenting the greatest contrasts in soil, climate, vegetation, and even in the appearance, habits, and speech of the inhabitants. In the south the crops are endangered by a superabundance of moisture, in the north by prolonged droughts. On one side rice is the staple of agriculture and food, on the other maize, wheat, and millet.

Parallel with the Tsing-ling other ranges run north of the Wei-ho valley in the peninsula formed by the two great bends of the Hoang-ho. But they are intersected by other ridges running south-west and north-east, and forming with them numerous valleys radiating in every direction. Some of the breaks occurring at the points of intersection afford important passes between the upper and lower courses of the Hoang-ho. Between the King-ho and Wei-ho a mountain mass,

Fig. 85.—Terrace Lands of Shansi.

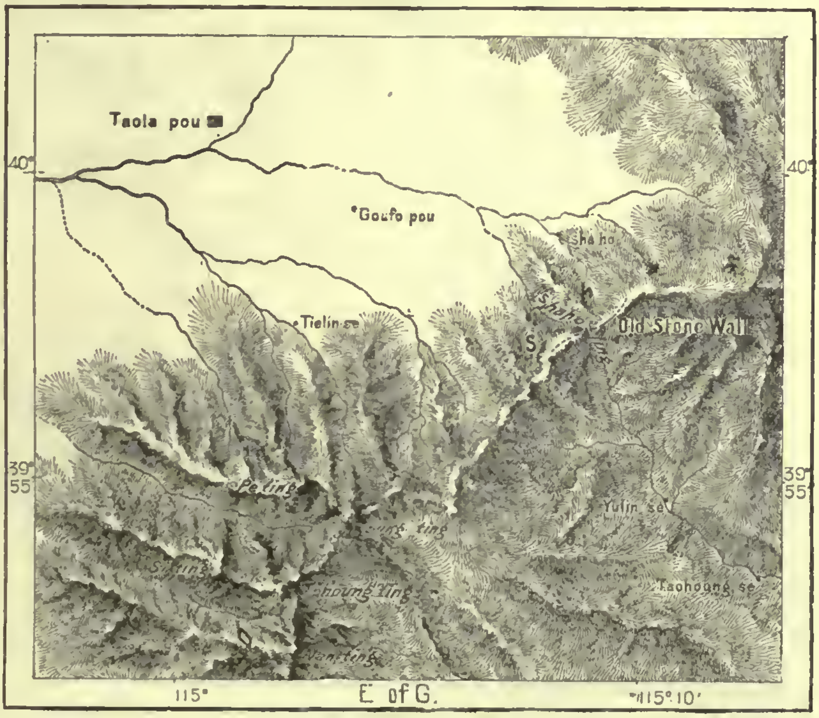
Scale 1 : 5,400,000.

120 Miles.

formerly known as the Yo, was long regarded as one of the bulwarks of the empire. North-east of Lanchew some of the peaks take the name of Siwe-shan, or "Snowy Mounts," but the ranges rising to the north of the Wei-ho valley are generally of moderate elevation. The ranges skirting the south side of the Ordos steppe are continued east of the Hoang-ho through Shansi. Here the "Western Mountains," from which the province of Shansi takes its name, run uniformly in a

north-easterly direction, and the whole region rises in successive terraces from the Honan lowlands to the Mongolian plateaux. Thus are formed several parallel basins in which the streams flow until they find a breach through which they reach the plains. One of the ridges skirting these basins is the Siwe-shan, or "Sierra Nevada" of Shansi, and towards its north-east end are several venerated peaks, the most frequented of which is at present the Utai-shan, or "Five Peaks," with an extreme height of 11,600 feet. As many as three hundred and sixty temples are said to stand on its slopes, some of which are imposing structures, and one of them is built of pure copper. According to the popular belief those buried

Fig. 86.—Utai-shan.
Scale 1 : 230,000.



3 Miles.

here are insured a happy transmigration, and the flowers growing especially on the Nanting, or "Southern Peak," are credited with certain medicinal properties. From the summit of these holy mountains a view is afforded of the Heng-shan, also one of the old "guardians of the empire." Traditional sacrifices are still offered here, but the Chinese do not display the same fervour as the Mongolian pilgrims to the shrines of the Utai-shan.

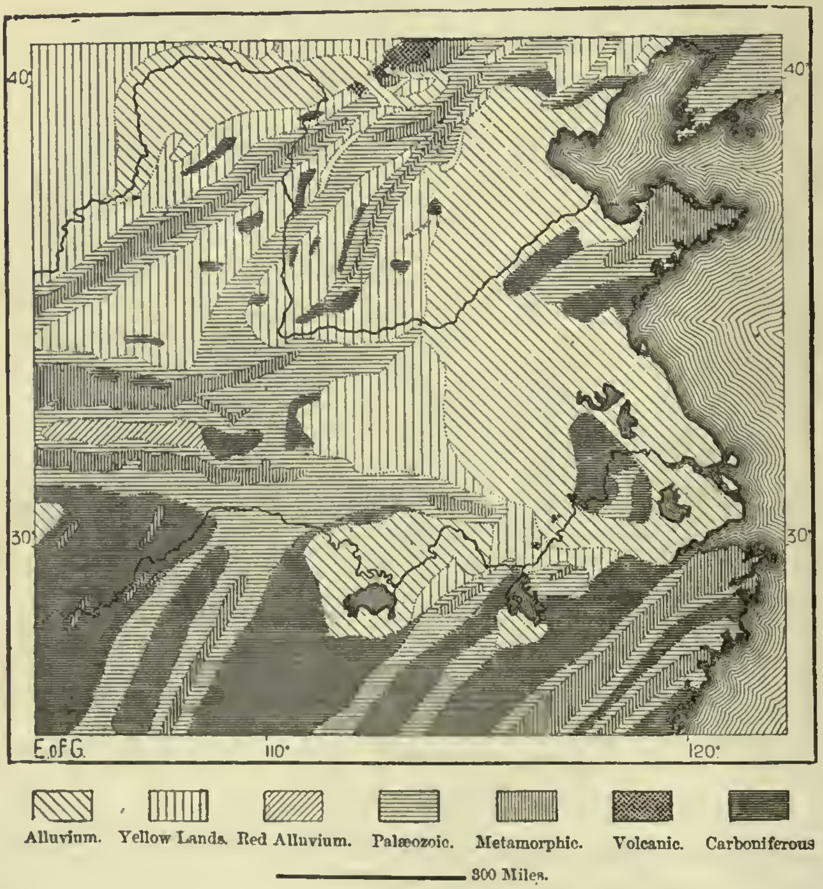
The Yellow Lands.

Apart from the highlands and alluvial plains, most of the Hoang-ho basin is covered with *hoang-tu*, or "yellow earth," which prevails throughout Pechili,

Shansi, Kansu, half of Shensi, the northern division of Honan, and extensive tracts in Shantung. This formation, comprising a region larger than the whole of France, reaches in some places even to the banks of the Yang-tze, and stretches westwards to the Tibetan plateaux. In these regions everything is yellow—hills, fields, highways, houses, the very torrents and streams charged with alluvia. Even the vegetation is often covered with a yellow veil, while every puff of wind raises clouds of fine dust. From these lands the Emperor himself takes the title of Hoang-ti, or "Yellow Lord," equivalent to "Master of the World." According

Fig. 87.—Yellow Lands of North China.

Scale 1 : 18,000,000.



to Richthofen, the hoang-tu, regarded by him as a formation analogous to the *loess* of the Rhine and Danube basins, is nothing more than so much dust accumulated during the course of ages by the northern winds. In any case it cannot be of glacial origin, for, instead of being simply heaped up like the moraine deposits, it is pierced by vertical holes ramifying in various directions, and caused by the stems and roots of plants gradually covered by the dust. Nor is the hoang-tu deposited in layers like the alluvia of running waters, while it is destitute of marine fossils attesting a possible submersion of the land under the ocean.

VIEW ON THE UPPER YANG-TZE-KIANG.

On the plateaux encircled by mountain barriers forming closed basins the yellow earth forms a uniform layer of unknown depth. But wherever the erosive action of running waters has had full play, enormous fissures with vertical walls have been opened in the argillaceous mass. The water, penetrating rapidly through the countless empty spaces left by the roots of plants, gradually disintegrates the soil, breaking it up into perpendicular blocks. The more exposed masses, giving way, form irregular cliffs, broken up in all directions, and creating a labyrinth of deep gorges flanked by perpendicular walls. In some places the work of erosion has left little beyond mere terraces, or isolated eminences, often resembling feudal strongholds. Elsewhere the gradual infiltration has excavated underground galleries in many districts affording shelter for the whole population. The erosions reveal in some places a thickness of at least 2,000 feet, offering a prodigious quantity of fertilising soil constantly washed down, and maintaining the productiveness of the plains watered by the Hoang-ho. For this yellow earth is the richest soil in China, being far more fertile even than ordinary alluvium. It requires no manuring, and goes on producing heavy crops for ages without showing any signs of exhaustion. It contains all the nutritive elements of plants, while its porous character is such that the moisture penetrates far into the soil, returning by capillary attraction, charged with all the chemical substances in solution which contribute most to the alimentation of the vegetable growths. It even serves as a manure for other lands, over which it is distributed in large quantities. Such is its efficacy that it enables the peasantry in the cold regions of North China to raise crops of cereals at an elevation of 6,500 feet, and in some places even 8,000 feet, whereas in the warmer provinces of the south the land is seldom cultivated beyond 2,000 feet above sea-level.

Much ingenuity has been displayed in overcoming the difficulties offered to free communication by the perpendicular walls of the yellow lands. To pass from river basin to river basin advantage has been taken of every narrow fissure, deep cuttings have been made in many places, and fresh routes opened when these have been filled up by the landslips. Some of the most-frequented roads have been excavated to depths of from 40 to 100 feet and upwards, and the labour expended on all these works is at least equal to that lavished on the building of the Great Wall, or the construction of the Grand Canal. The roads are sometimes continued for hundreds of miles almost in the bowels of the earth, but are seldom more than 8 or 10 feet wide, the wheeled traffic being conducted by means of shuntings like the "gares" in the Suez Canal. In dry weather the waggons sink into the dust up to the axle, while after the rains the tracks are converted into quagmires, dangerous alike to man and beast. Yet these difficult highways, being quite unavoidable, possess great strategic importance, the blockade of one of these defiles at a single point being often sufficient to cut off all communication between extensive regions.

The mountains whose lower slopes are covered by the yellow earth also contain some of the richest coal beds in the world. Anthracite and other varieties are found in all the provinces watered by tributaries of the Hoang-ho—Pechili,

Shantung, Shansi, Shensi, Kansu, Honan—and some of the deposits are conveniently situated on the river banks, whence the produce can be easily exported by water to the seaboard. The anthracite basins of Honan alone cover an area of over 21,000 square miles, so that one of the most agricultural regions on the globe offers every element of future industrial development.

Topography.

The Hoang-ho basin has in recent times suffered so much from the ravages of civil war, inundations, and long droughts, followed by famine and pestilence, that not even an approximate estimate can be formed of its present population. The country, however, appears to be rapidly recovering from these disasters, and according to the reports of recent travellers, the towns and villages are again everywhere assuming their normal appearance. Thanks to the introduction of the potato plant, some of the upland valleys hitherto uninhabited are now receiving numerous settlers, and at the present rate of increase the Hoang-ho basin will in a few decades be again peopled by some eighty millions, as it was before the Mohammedan insurrection and the bursting of the Kaifung-fu embankments.

Gomi, the most elevated town on the Hoang-ho, was recently visited by Prjevalsky. It stands at an altitude of 8,000 feet on the extreme verge of the cultivated zone, which is here succeeded by the wooded tracts where the blue pheasant is indigenous. *Sining-fu*, lying east of the Kuku-nor, on the left bank of the Sining, is the capital of Kansu, and residence of the authorities, who administer the Tangut and Mongol populations of the Kuku-nor region. Its position at the north-east corner of the Tibetan plateaux, and near the historic route to the Tarim basin and Zungaria, renders it strategically and commercially a place of great importance. But the wide circuit of its walls now encloses many ruins, while much of its trade has been transferred to *Donkir*, some 24 miles farther west. Here the Eastern Tibetans and Si-Fan tribes assemble to exchange their rhubarb, hides, wool, live stock, and minerals for provisions and other supplies. Amongst these varied and unruly elements the exchanges are not always effected without bloodshed; the dealers go armed, and disputes about the market prices sometimes end in free fights. This region is sacred in the eyes of the Tibetan and Mongol Buddhists, as the birthplace of the great reformer, Tsonkhapa, and amongst the lamassaries held in special reverence is *Kunbum*, which lies south of Sining, on a wooded terrace near the deep gorge of the Hoang-ho. Before the recent Mohammedan and Si-Fan troubles this place contained 4,000 lamas, and its university comprises four schools devoted to the study of the occult sciences, ceremony, prayer, and the art of healing the "four hundred and forty ailments of mankind." One of the chief remedies is the foliage of a sacred tree, a species of elder, growing in front of the great temple, every leaf of which is said to bear a representation of Buddha and various characters of the sacred Tibetan alphabet. Huc fancied he saw this marvel, and Szechenyi, after much inquiry, was shown a leaf on which had been traced the rude outlines of a figure of Buddha.

ROAD CUT THROUGH THE "YELLOW EARTH."

North of Sining-fu and *Chungpé-hien*, which also lies on the Sining-ho, nearly all the towns were reduced to heaps of ruins during the late Dungan rebellion. But thanks to its strong ramparts, *Lanchew-fu*, starting-point of the main route to the west, was not only preserved, but also afforded an asylum to innumerable refugees from the surrounding districts. Official capital of Kansu, although the Viceroy resides alternately at *Suchew*, near the "Jade Gate," Lanchew-fu occupies an advantageous site on the right bank of the Hoang-ho, which near this point bends suddenly northwards round the Ordos peninsula. Although its forty thousand houses are mostly mere wood huts, its well-kept streets, paved with granite and marble blocks, impart a pleasant appearance to this place. Amongst

Fig. 88.—Singan and the Lower Wei-ho Valley.
Scale 1 : 1,700,000.

30 Miles.

its numerous industries are a cannon foundry and a factory conducted by Europeans for the manufacture of cloth for the army and other coarse materials in wool and camel's hair. There are even some steam-engines supplied from the neighbouring coal mines, and broad roads of modern construction, planted with elms and willows, radiate from this important centre to every part of the province. Some 60 miles south-west of Lanchew-fu is the fortress of *Salar*, or *Hochew*, the chief stronghold of the Dungans during the insurrection. From this place they probably take the name of Sah-la', by which they are known in Kansu.

On the left bank of the Hoang-ho stands the commercial town of *Chongwei*, at the east foot of the Ala-shan, and close to one of the gates of the Great Wall on

the very verge of the desert. Farther down the historic city of *Ninghia*, a former emporium of trade with Mongolia, and capital of an independent state in the tenth and eleventh centuries, still presents an imposing appearance with its pagodas, lofty brick walls, and ramparts. Below Ninghia the chief places are *Baotu* (Bichukhai), on the left bank, and *Chagan-kuren*, near the north-eastern angle of the Ordos peninsula. South of the Great Wall the stronghold of *Paoté* guards the chief passage leading across the Hoang-ho, between the provinces of Shensi and Shansi. Here the stream is scarcely 450 yards broad.

South of the Ordos peninsula the chief stations on the great historic highway between the two bends of the Hoang-ho are marked by the towns of *Pingliang-fu*, *Kinchew*, and *Pinchew*, all of which were enabled by their strong ramparts to resist the Dungan rebels. But all the surrounding lands were wasted, and the Dungan prisoners themselves have since been employed in repairing the damage done and raising extensive defensive works against similar outbreaks in the future. A grotto near Pinchew contains the largest and most famous statue of Buddha in Central China. It is about 56 feet high, and flanked by two others half the size, representing two disciples pointing at the divinity. In the Wei-ho valley the chief place is *Kunchew*, below which, on the same river, lies the administrative town of *Fuchang-hien*, near a hill surmounted by another colossal Buddha. Farther south, on the banks of a tributary of the Wei-ho, rise the pagodas and domes of *Tsingchew*, which forms a group of five municipalities with a common mayor, but each surrounded by a separate enclosure of high walls. Tsingchew is a large mart for tea, tobacco, and indigo, and has some silk embroidery and metal industries.

Singan-fu, the chief town of Shensi, and capital of the Middle Kingdom under the Tsin dynasty (906 to 1280), is still one of the largest places in the empire, being exceeded in population probably by Canton alone. It stands in a plain at the confluence of the Wei-ho, King-ho, and a few other smaller streams, and each of its square walls facing the cardinal points is over 6 miles long, and pierced in the centre by a monumental gate with lofty pavilions. Thanks to its central position and fertile soil, Singan has for thousands of years been a commercial city of the first class, and although none of its old buildings have been preserved, it contains a rare archæological collection of designs and inscriptions some two thousand years old, and of great historical importance. During the late Dungan revolt the fifty thousand Mohammedans of Singan were interned within the walls under pain of death, and the inhabitants were with difficulty prevented from exterminating them.

On the Wei-ho, below Singan-fu, lies the formerly important town of *Hoa-chew*, where the terrible outbreak began in 1860 which devastated so many flourishing lands and cost the lives of millions of their inhabitants. Of this place nothing now remains except one of the oldest monuments in the empire, a temple erected at the beginning of the Christian era. In the district the largest place now is the fortress of *Tung-kwan*, or "The East Gate," which is the central stronghold of the Hoang-ho basin, and one of the best-defended points in China. Occupying a vital position where the Hoang-ho, after receiving three copious affluents, suddenly

trends eastward, Tung-kwan is the natural junction of several main routes, and in the neighbourhood is the sacred Hoa-shan, a hill like the Tai-shan of Shantung, covered with shrines and much frequented by pilgrims. Enthroned on the summit and encircled by heavenly spirits is the "White Emperor" (Pei-hi), guardian of the western provinces.

North Shansi, bordering on the Ordos country, is one of the least-known regions in China. It is known, however, to contain some commercial places, such as *Fuchew*, in the valley of the Lo-ho; *Yangan*, in a rich coal and petroleum district farther north; *Yulin-fu*, at a gate in the Great Wall near the Mongolian steppe. The northern division of Shansi, being more accessible, has been frequently visited by European explorers, who have carefully studied its geology and natural resources. Here lies *Taiyuan-fu*, capital of the whole province, in a rich district watered by the Fuen-ho, a tributary of the Hoang-ho. Like Peking, Taiyuan has its Manchu quarter separated from the Chinese town by a lofty enclosure. It had formerly a well-known manufactory of small arms, and it still contains a Government arsenal and gun foundry. The district produces the best grapes in China, from which the inhabitants make a good wine, following the method introduced by the early Roman Catholic missionaries.

South and south-west of the capital are the busy towns of *Hiewkao* and *Chi-hien*, and farther on are the flourishing cities of *Taiku-hien* and *Changlan-chin*, which have extensive relations with London, Marseilles, and San Francisco. Every town and village of this district has its special industry—woven goods, paper, hardware, porcelain, bronzes—while the coal mines are largely worked for the local demand.

Before the Taïping revolt *Pingyang-fu*, in a sandy plain on the Fuen-ho, was one of the largest places in Shansi; now it is a mass of ruins, from which, however, it is gradually recovering. It is one of the oldest cities in the world, and within 2 miles of its triple enclosures lies the site of the imperial capital during the Yao period, over forty-two centuries ago. Close by is a temple dedicated to the memory of the three venerated Emperors, Yao, Shun, and Yu, and according to the legend Yao lies buried in a grotto amongst the hills east of Pingyang. Several large places, such as *Puchew-fu*, *Kiai-chew*, *Nganyi*, and *Yuenching*, lie in the south-east corner of Shansi, where the rich salt works supply the requirements of the whole province, besides the greater portion of Shansi, Honan, and Kansu. The chief saline stretches along the north side of a lake 18 miles long, whence is probably extracted more salt than from any other spot in the world. The primitive method of working it seems to have little changed since the time of Yao, yet it still yields about 154,000 tons yearly, which is forwarded to the surrounding provinces chiefly through Yuenching. The numerous saline springs of South Shensi and Honan show that vast salt beds exist also in these regions. On the opposite slope of the Fungtiao-shan salt marshes stretch away to the banks of the Hoang-ho, and here the yellow-earth cliffs are everywhere saturated with salt.

Below Tung-kwan towns and villages follow in rapid succession along both sides of the Hoang-ho. *Honan-fu* occupies the site of a former imperial capital,

and near it stood *Loyang*, the imperial residence during the Wei and Tang dynasties in the third and seventh centuries of the vulgar era. It lies near the north bank of the Lo-ho, which here flows parallel with the main stream, from which it is separated by a long range of hills. Honan occupies one of the most central points in the empire; and when the Great Asiatic Railway is completed, it cannot fail to become a chief emporium of the transit trade with the West. The surrounding hills are crowned with some of the oldest and most curious temples in China.

Kaifung-fu, capital of Honan, and still universally known by its old name of *Pien-leang*, is deprived of the full advantage of its favourable position on the right side of the Hoang-ho by the inundations both of the main stream and of its tributary, the Pien, by which the riverain tracts are here often devastated. In 1541 it was almost entirely destroyed by its own inhabitants, who broke down the embankments in order to drown a rebel army. Unfortunately they nearly all perished themselves, while most of the besieging forces had time to escape. Kaifung-fu, which was the imperial capital from 1280 to 1405 A.D., has preserved none of its old monuments, and is now merely a trading place, presenting the aspect of a permanent fair. Here is the only Jewish community in China, engaged almost exclusively in gold and silver work, brokerage, and money-lending.

North of the Hoang-ho the city of *Hoaiking-fu*, surrounded by a vast garden, watered by rivulets from the Taishang-shan hills, although a busy place, is surpassed in importance by *Chingwa-chen*, which lies 11 miles farther north-west, and which is a great centre of the coal and iron industries. The route running thence to Tientsin traverses the large city of *Wei-hwi-fu* (Wei-kiun) and the port of *Tankow-chen*, at the head of the navigation of the Wei-ho. West of this river lies *Changte-fu*, noted above most Chinese towns for its well-kept streets and prosperous appearance.

South of the Hoang-ho the most important place in the extensive plains watered by the Hoaï and its tributaries is *Chowkia-kow*, at the confluence of the three head-streams of the Sha-ho, and west of the provincial city of *Chinchew-fu*. The plains surrounding *Kweité*, south of Kaifung-fu, are quite as productive as those of West Honan, but they suffered far more from the ravages of the Taïping rebels. The lacustrine region stretching from Nanking to Tsinan, and traversed by the Grand Canal, being undefended by any strongholds, all its towns were seized and sacked by them.

BASIN OF THE YANG-TZE-KIANG.

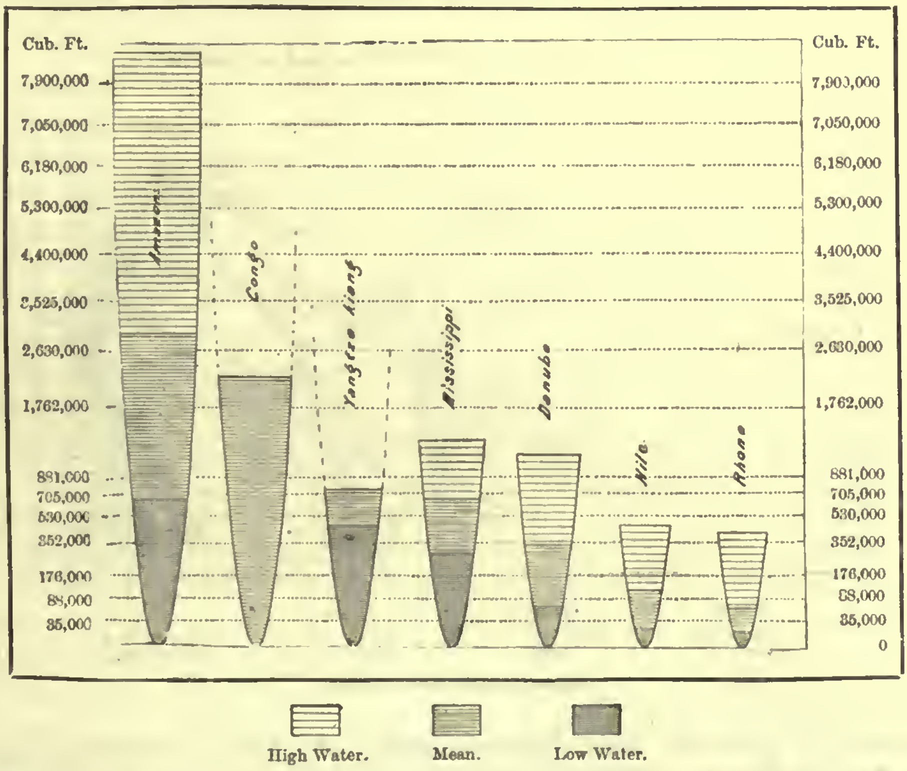
SECHUEN, KWEICHEW, HUPEH, HUNAN, NGANHWEI, KIANGSU, KIANGSI, CHEKIANG.

THE Yang-tze-kiang basin comprises three-eighths of China proper, with a population estimated, before the late civil war, at no less than 200,000,000. Although not originally founded here, the State drew from this region the chief elements of strength, which enabled it to develop into the paramount power of East Asia.

Of the two great Chinese rivers the Yang-tze is by far the largest, and is

hence commonly spoken of simply as the Ta-kiang, or "Great River." Like those of the Hoang-ho, its waters are turbid and of a yellow colour, from the alluvia washed down with the stream. But while the Hoang-ho is compared to the "earth," or "Female Principle," whose symbolic colour is yellow, the Yang-tze, according to some commentators, is the "Son of the Male Principle;" that is, of Heaven. The title of "Blue" given to it by the early missionaries, and still current in Europe, would thus be justified, azure being the colour of the sky. But much doubt prevails as to the real meaning of the characters commonly used to designate this river, which may possibly mean "Son of the Ocean," in allusion to its vast inundations, or may be a purely geographical expression, derived from the

Fig. 89.—Comparative Discharge of the Yang-tze and other Rivers.



old province of *Yang*, now called Kiangsu. But however this be, the grandiloquent epithets applied to the river of Central China need cause no surprise, for it is certainly one of the very largest in the world. In the length of its course and the extent of its basin it is no doubt surpassed by three others in Asia alone—the Ob, Yenisei, and Lena.* But in volume it far exceeds those Siberian streams, and according to the careful measurements of Blakiston and Guppy, it is surpassed in this respect by three only in the whole world—the Amazons, Congo, and La Plata. Below the confluence of the Han the mean discharge is about 635,000 cubic feet

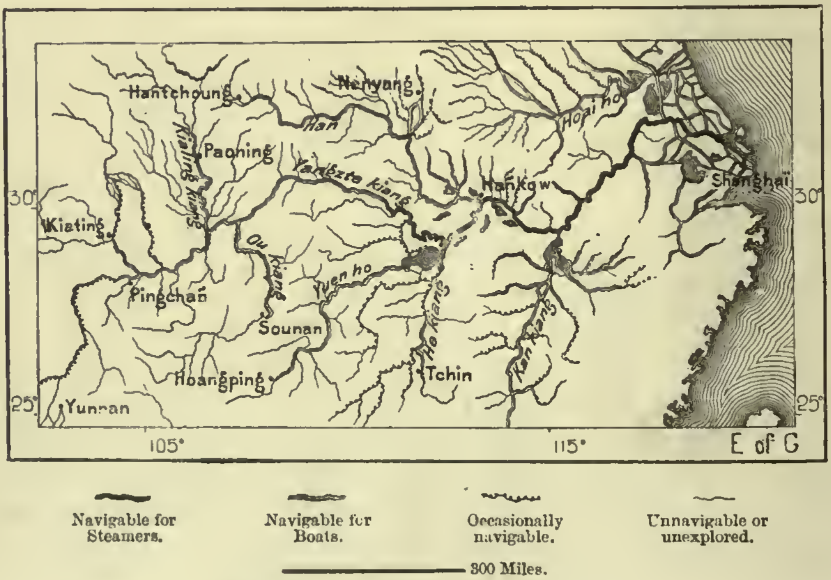
* Length of the Yang-tze according to Ritter, 2,800 miles; approximate area of drainage according to Blakiston, 750,000 square miles.

per second, and at high water in August 1,260,000 cubic feet. Assuming that the proportion between rainfall and discharge is maintained throughout its lower course, the average volume of the Yang-tze would be 858,000 cubic feet, or six times that of the Nile, and ten times that of the Rhone.

When instituting comparisons between their two great water highways, the Chinese never fail to contrast the beneficent character of the southern with the disastrous influence of the northern stream, which they have entitled the "Scourge of the Sons of Han." The Yang-tze has never caused such widespread ruin as that which has attended the shiftings of the Hoang-ho, nor is any river in the world more useful for navigation. If it does not yet number as many steamers as the Mississippi, or even the Volga, it is none the less crowded with flotillas of junks and river craft of every description, while its floating population is numbered by

Fig. 90.—Navigable Course of the Yang-tze and its Tributaries.

Scale 1 : 20,000,000.



hundreds of thousands. Marco Polo was certainly guilty of no exaggeration when he declared that the waters of the "Kian" bore more vessels laden with more merchandise than on all the united seas and rivers of Christendom. A conflagration caused by lightning in the port of Uchang in 1850 consumed seven hundred large junks and thousands of small boats, and on this occasion as many as fifty thousand people are said to have perished by fire or water. One local merchant alone ordered no less than ten thousand coffins. Thus were destroyed in a single port more boatmen than are found in all France. The Taïping rebellion, which raged chiefly along the banks of the Yang-tze and its great affluents, for a time swept the river of its inhabitants. But since the restoration of peace the local trade has revived, and long lines of craft engaged in peaceful pursuits have again made their appearance on its waters. But these flotillas are from time to time

tossed by the waves raised by the passing steamers, as if to warn them of the revolution that is taking place in the methods of transport.

The Yang-tze has received from the Mongolians the title of Dalai, or "Sea," and in the history of China it has played the same part as the ocean and great marine inlets elsewhere. It has afforded even greater facilities for travel, for the transport of goods, and for the mutual intercourse of the surrounding peoples. At the present day European influences are penetrating into the heart of the empire through the same channel, which for practical purposes may be regarded as a continuation of the seaboard, stretching some 2,400 miles inland. The total length of the navigable waters in its basin is equal to half the circumference of the globe.

The Upper Yang-tze and Min.

The head-streams of the Yang-tze are known to rise on the Tibetan plateaux, far beyond the limits of China proper. Although still unexplored by European travellers, its actual source may be indicated with some approach to accuracy. Three rivulets, known to the Mongolians as the Ulan-muren, or "Red Rivers," and more particularly discriminated as the Nameitu, Toktonai, and Ketsi, take their rise in the north-eastern region of Khachi, south of the unexplored Kuen-lun ranges, which are here continued westwards by the Bayan-khara chain. These three streams jointly form the Murui-ussu, or "Winding Water," of the Mongolians; the Dichu, or Brichu, of the Tibetans—that is, the "River of the Cow;" and in Chinese territory the Yang-tze-kiang. Where it was crossed by Prjevalsky, at an elevation of 13,000 feet above the sea, its bed was 750 feet broad, and its current very rapid. From the appearance of its banks it is evident that during the summer inundations its waters are spread over a space at least 5,300 feet wide. Hence at an altitude of nearly 2½ miles above the sea, and over 3,000 miles from its mouth, the Murui-ussu already discharges more water than many famous streams in West Europe. In this region the two great rivers of China approach nearest to each other, their basins being here separated only by the ridge of the Bayan-khara, whose snows feed both streams.

The Murui-ussu at first follows the same direction as the other rivers of East Tibet, flowing parallel with the Lu-tze-kiang and Lantzan-kiang southwards, as if intending to discharge its waters into the Gulf of Siam. But after falling for over 600 miles towards the Indian Ocean, it fails to pierce the Yunnan plateau, and is thus deflected eastwards to the China Sea. At this part of its course it has received the names of Kinsha-kiang, or "River of the Golden Sands," and Peshui-kiang, or "White Water." The title of Kinsha-kiang has also been conferred on the Yalung (Yarlung), or Niachu, which flows from the slopes of the Bayan-khara parallel with the Murui-ussu and the other Tibetan rivers of the province of Kham. At the confluence of both the Yalung, nearly as large and more rapid than the main stream, plunges into a wild rocky gorge which has never yet been pierced by a path.

Below the Yalung the Kinsha-kiang receives another tributary from the Bayan-

khara, or at least from its eastern extension, the Min-shan. This is the Wen, or Min of our maps, which also flows parallel with the other watercourses of the province of Kham. There can be no doubt that the Min must be regarded as an affluent of the Kinsha-kiang, to which it is greatly inferior in volume and length, while its valley is merely a lateral trough in the great depression traversed by the waters of the Yang-tze. Nevertheless most Chinese authorities have considered the Min as the main branch, a fact which must doubtless be attributed to the common culture prevailing in the valleys of the Min and Lower Yang-tze. The great river coming from the upper regions inhabited by wild and hostile tribes seemed to the civilised Chinese to belong to another world. They considered, in fact, that the Kiang, or "River," pre-eminently so called, should flow altogether within the limits of their domain. In the Yukung, the oldest Chinese geographical work, the Min is already described as forming the upper course of the "Great River," and Marco Polo, who lived in its valley, also gives it the name of "Kian." On the old maps all the upper course of the Kinsha-kiang is suppressed, while an exaggerated importance is assigned to the Hoang-ho, whose valley had been the first to be settled. Since Marco Polo's time the Min has shifted its bed in the plain where is situated Chingtu-fu, capital of Sechuen. It flowed formerly through the heart of the city in a deep channel half a mile broad, whereas now it no longer traverses the place, and ramifies into several branches, of which the one nearest to the town walls is only 330 feet wide. This change in its course has been largely caused by the irrigation canals constructed in the surrounding plain, which is one of the most fertile in China.

During the inundations the Min is navigable as far as Chingtu, but at other periods the boats cannot get beyond Sintsin-hien, the converging point of all the natural and artificial channels in this basin. Here begins, at a distance of 2,000 miles from the sea, the vast and unbroken water highway by which the whole of China proper is intersected from east to west. One-tenth of this navigable artery is formed by the Min, whereas above the confluence the Kinsha-kiang would appear to be only navigable for some 60 miles by ordinary craft. At the same time the falls spoken of by the boatmen of Pingshan are probably mere rapids which might easily be overcome, and the solitude of these waters should perhaps be attributed to the terror inspired by the surrounding Miaotze wild tribes. But even below the junction of the Min the navigation of the main stream is not everywhere clear of rapids and other obstructions. According to Blakiston's measurements the total fall of the Yang-tze below Pingshan is about 1,500 feet in a distance of 1,760 miles, or little more than an average of 10 inches in the mile, but very unevenly distributed. Below the junction the river, here flowing north-east, follows the direction of the rocky ranges which fringe both its banks, but which at intervals present gaps, through which the stream rushes in an abruptly winding bed. The projecting bluffs are here crowned with strongholds and entrenched camps, which offer a refuge to the peasantry of the surrounding districts during civil war. At their foot are rich deposits of coal, carbonate of lime, and here and there of iron ores, while a little gold-washing is done along the more level banks.

The Middle Yang-tze and Han-kiang.

In all this region, to which Blakiston has given the name of "Cross Ranges," the old banks may be traced at a considerable elevation above the present level of the highest floodings. It is evident that the river formerly flowed at a much higher elevation than at present. In this frontier region, between the provinces of Sechuen and Hupeh, the "Ta-kiang," or "Great River," presents some of its grandest and most varied scenery. Below the Shipuchai, or "House of the Precious Stone," a Buddhist temple romantically perched on a square rocky bluff, the stream plunges into a gorge with vertical walls over 650 feet high. At some points the channel is scarcely 470 feet wide, and, as most of these deep fissures run east and west, their depths are seldom reached by the solar rays. Their gloomy recesses are overgrown with ferns and other vegetable growths delighting in the shade and moisture, while their summits are clothed with forests of conifers. Sunken ledges fringe the banks, but in many places the channel is fully 100 feet deep, rising during the August freshets from 60 to 70 feet above its ordinary level in the narrow ravines. To avoid these inundations all the houses have to be perched on the crests of the headlands. Ordinary craft, if well managed, pass down without much risk of going to pieces on the sunken shoals; but those ascending the stream have to struggle against a current, in some places running over 10 miles an hour. Here a regular towing system has been organized, and at the more dangerous points villages have sprung up peopled mainly by skilled boatmen engaged in this work. As many as a hundred are sometimes attached to the bamboo towing-rope of a single junk, and are often preceded by a clown or hired buffoon leaping and bounding along, and encouraging them with his merry antics.

Between Kweichew and Ichang the series of *tau*, or chief rapids, have a total length of 114 miles, and terminate with several romantic gorges, such as those of Lou-kan and Mi-tan. Beyond these the hills suddenly fall on either side, the stream expands to a width of over 5,000 feet, and here porpoises are met following in the wake of the junks. For at this distance of 1,000 miles from the coast marine influences are already felt in a river to which the natives have applied the saying, "Boundless is the ocean, fathomless the Kiang." For ordinary craft it may truly be described as fathomless, being scarcely anywhere less than 20 feet deep, even at low water. But as we approach the sea the danger of inundations increases with the gradual lowering of the banks, and in the plains the stream is enclosed on both sides by regular embankments, like those of the Hoang-ho. The evil, however, is here greatly mitigated by the extensive lagoons, and even veritable lakes, which now begin to make their appearance on both sides. Of these lakes the largest is the Tung-ting, which lies above the confluence of the Han. With an area of at least 2,000 square miles, the Tung-ting serves as a reservoir for the overflow of a basin some 80,000 square miles in extent, comprising nearly all the province of Hunan. This lake changes in form and extent according to the volume of water discharged into it by the Yuen, Su, Siang, and its other influents, and according to the level of the Yang-tze itself, from which there is at times a

back flow through the Tungting-ho emissary. During the floods the riverain population forsake their villages, seeking a temporary refuge either on the surrounding hills or on the boats and rafts. From the Tung-ting are named the two adjacent provinces of Hupeh and Hunan; that is, "North of the Lake" and "South of the Lake" respectively.

Both in size, commercial and historical importance, the chief affluent of the Lower Yang-tze is unquestionably the Han-kiang, which presents a natural highway of trade and migration between the two great arteries of the empire. In the Han basin are also concentrated all the elements of prosperity—a temperate and healthy climate, fertile soil, abundant water of good quality, an endlessly varied flora, gypsum, marbles and other building materials from the neighbouring hills; lastly, rich carboniferous deposits. The Han is available for navigation nearly throughout its whole course, and in summer might be ascended by steamers for a distance of 600 miles. Even above Hanchung-fu, where it is a mere torrent, it becomes navigable for boats during the floods; but, on the other hand, its middle course is obstructed by rapids, which cause frequent shipwrecks. Lower down the channel stands at a higher elevation than the surrounding plains, and here the villages are often built on broad terraces, resting against the embankments, and during the inundations forming artificial islands amid the surrounding waters. The whole plain, stretching from Lake Tungting to the Han and Yang-tze confluence, is at times converted into a vast inland sea, although in its lower course the bed of the Han itself is narrower than higher up. At low water in winter it is only 200 feet broad at Hankow, whereas it expands in its middle course to 2,600 feet, and in some places even to 1½ miles from bank to bank.

Lake Poyang and the Lower Yang-tze.

Lake Poyang resembles the Tungting in its position south of a great bend of the Yang-tze, its vast extent, its hydrographic system, and its importance for navigation. It also receives a large influent, the Kia-kiang, whose alluvial delta is seen at low water projecting far into the lake. Here also there is a back flow from the Yang-tze, raising the level some 30 feet. Lake Poyang is studded with islands, but many parts of the surface, some 1,800 square miles in extent, are little more than marshy forests of reeds. In the north, however, it is very deep, and here the shores are fringed with wooded hills, headlands, and steep bluffs crowned with the towers and pagodas of numerous towns and hamlets. The animation of the picturesque prospect is enhanced by the numerous flotillas, rafts, and junks plying on these busy waters. Near the outlet rises the "Great Rock of the Orphan," confronting the smaller but more elevated "Little Rock of the Orphan," which stands on the Yang-tze itself over against the confluence. The water-fowl and schools of porpoises which penetrate into the lake give it the appearance of a marine inlet, and the resemblance is often heightened by the fierce storms to which it is subject.

Below Lake Poyang the Great River trends north-east across one of the most pleasant landscapes in China. Here the current flows in its broad bed with a

RIVER VIEW OF UPPER YANG-TZE-KIANG.

placid uniform motion; the monotony of its grey waters is broken here and there by leafy islets; the hamlets along the banks nestle amid their bamboo thickets and clusters of trees; the neighbourhood of the busy marts is announced by the towers and pagodas crowning every eminence; the cultivated plains are intersected on both sides by low grassy ridges, which wind away till lost in the haze of the distant horizon. But the true alluvial plains are not reached till we get beyond Nanking, where the Yang-tze turns eastwards and gradually expands into a broad estuary, in which the tides ascend for a distance of 215 miles. Here the channel in some places exceeds 300 feet in depth, but the bed contracts as it approaches the coast, where it is separated by extensive sand-banks from the sea. At the mouth the distance from headland to headland is about 60 miles; but most of this space is occupied by islands and shoals, where the deepest channels across the bar have a mean depth of 13 or 14 feet, rising at high water to 24 feet and upwards. Vessels drawing 16 or 18 feet are thus easily able to pass up, the chief danger to navigation here being the dense fogs which settle on the shallows, and which, as elsewhere in the Yellow Sea, are due to the sudden change of temperature produced in the currents surrounded by deeper waters.

The Yang-tze carries in solution less sedimentary matter than the Hoang-ho. According to the observations of Guppy, the proportion of solids in the lower reaches is $\frac{1}{2188}$ in weight, and $\frac{1}{4137}$ in volume. Yet the alluvium at the mouth represents a solid mass of nearly 210 cubic feet per second. Thus the yearly increase of fluvial deposits amounts to 6,300 millions of cubic feet, a quantity sufficient to spread a layer of mud nearly 7 feet thick over an area of 40 square miles. Hence the position of the navigable channels is modified from year to year; new sand-banks make their appearance, and the islands in the estuary are constantly increasing in size. The island of Tsungming, or Kianshe, running north-west and south-east, immediately north of the Wusung roadstead, is said to have been just rising above the surface at the time of the Mongol rule. Eaten away by erosion on the side facing inland, it is continually increasing seawards, and is thus drifting, so to say, in the direction from west to east. Its earliest settlers were exiles banished from the mainland; but these were soon followed by free colonists, who gradually changed the aspect of the land with their canals, embankments, villages, and cultivated fields. Some Japanese pirates also gained a footing on the coast facing seawards, where their descendants, turning to the arts of peace, have become intermingled with the Chinese peasantry. At present about 2,000,000 souls are crowded together in an area of scarcely more than 800 square miles, which is thus one of the most densely peopled as well as one of the richest spots in China. During the first half of the present century the colonists of Tsungming enjoyed complete exemption from imposts, official control, and all vexatious intermeddling on the part of the mandarins. The consequence was that they were at once more prosperous and more civilised than their kinsmen on the mainland. At present these islanders take successive possession of all the new lands formed in the Yang-tze estuary. In this way has been colonised the large island of Hitei-sha, which has itself been formed of a hundred different islets

connected by mud-banks with the northern headland at the mouth of the estuary. In this part of the province of Kiangsu the settlers find themselves in contact with an almost savage aboriginal element, to which they present a marked contrast in their gentle disposition and superior intelligence.

Although inferior in importance to those of the Hoang-ho, great changes have nevertheless taken place in the course of the Lower Yang-tze-kiang. Besides its present mouth, it had formerly two others farther south. Of these the largest branch, which may still be traced throughout most of its windings, ramified from the northern channel, at the point where is now the city of Wuhu, above Nanking. From this point it pursued a meandering course south-eastwards to the Hangchew

Fig. 91.—Old Mouths of the Yang-tze.

Scale 1 : 4,500,000. After Edkins and Desker.

Old Beds of the Yang-tze-kiang.

Hilly Lands.

90 Miles.

estuary. The outlines of its ancient bed are still preserved by a string of lakes in the Shanghai peninsula, now abandoned by the Yangtze. Thus the Ta-hu, the largest of these peninsular lakes, recalls its former fluvial character in the outlines of its western shores, which follow the right bank of the Yang-tze. The Gulf of Hangchew itself still retains the aspect of a river mouth, although the process of alluvial deposits has been interrupted, and in many places even reversed, the waves washing away the sand-banks and eating into the old coast-line. The whole district, which formerly comprised the Yang-tze delta between the two estuaries, is a low-lying tract resembling Holland in appearance, being cut up in every direction by dykes and canals, and all the traffic being conducted by water. North of the Yang-tze the alluvial plain, which stretches

northwards to the old bed of the Hoang-ho, presents much the same aspect, and here also the natural and artificial channels form an inextricable labyrinth of watercourses. This region is traversed south and north by the Grand Canal, a former affluent of the Yang-tze, which now joins the Hoang-ho, while the Hoaï, fed by the torrents from the extreme spurs of the Kuen-lun, is distributed over the plain in numerous branches, which converge in the old beds of the Hoang-ho. A

Fig. 92.—Channels and Breakwaters between the Hoang-ho and Yang-tze.

According to the Missionaries Scale 1 : 2,500,000.

good idea of the appearance of this watery region may be had from the chart of the early Roman Catholic missionaries, since rectified by the Chinese geographer, Li-fong-pao.

Sechuen Highlands.

Between the outer terraces of Tibet and the shifting shores of the Yellow Sea the Yang-tze basin is divided by the varying relief of the land into several natural regions, differing one from the other in their climate, products, and the character of their inhabitants. A well-marked region is that of the West Sechuen highlands,

where the "River of Golden Sand" winds its way along deep narrow gorges through the lands of the Tibetans, of the Mantze and Lolo. East Sechuen, again, is separated from the plains of Hupeh by the "Cross Ranges" and the ravines between Kweichew

Fig. 93.—Channels and Breakwaters between the Hoang-ho and Yang-tze.

According to Li-fong-pao. Scale 1 : 2,675,000.

60 Miles.

and Ichang, while the Nganhwei hills mark the extreme limits of the uplands and the beginning of the lowland plains more recently conquered from the ocean.

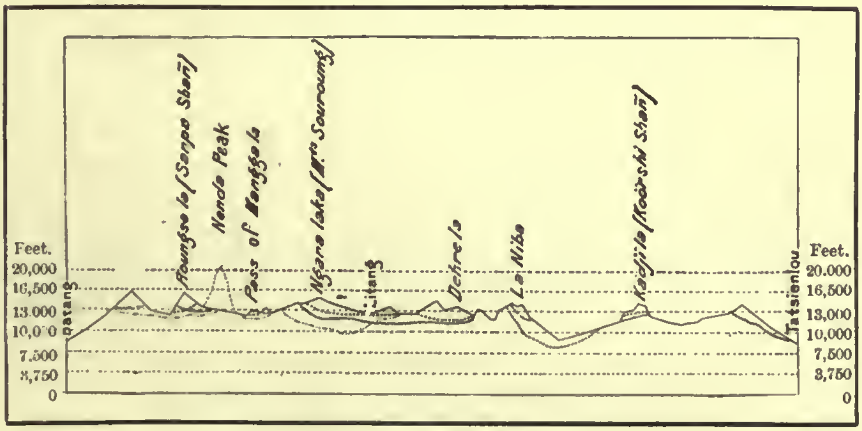
The ranges on the East Tibetan frontier are evidently the remains of a plateau gradually worn by the action of ice and running waters into parallel ridges running mainly north and south. Although cut deeply into the thickness of the

plateau, the very river beds in this region still lie at elevations of from 8,000 to 10,000 feet above sea-level. The great trade route leading from Lassa, through Batang and Tatsienlu, to West China, maintains between those two towns an almost uniform elevation of 11,000 feet, and three passes on this route stand at a height of nearly 20,000 feet. These passes are much dreaded by travellers, far more on account of the rarefied atmosphere than for their steep inclines, severe cold, and fierce gales.

The ranges separating the Kinsha-kiang from the Yalung, and the latter from the Min, far to the south of the Kuku-nor and Bayan-khara plateaux, also present summits rising above the snow-line, which has been fixed by Gill at from 14,000 to 16,000 feet in these regions of the East Tibetan frontier. Thus the Nenda, or "Sacred Mountain," rising to the east of the Upper Kinsha-kiang valley, under the parallel of Batang, is no less than 20,500 feet high, and sends down in all

Fig. 94.—Mountains between Tatsienlu and Batang.

According to Gill.



Limit of Forests.
" Tillage.
" Pastures.

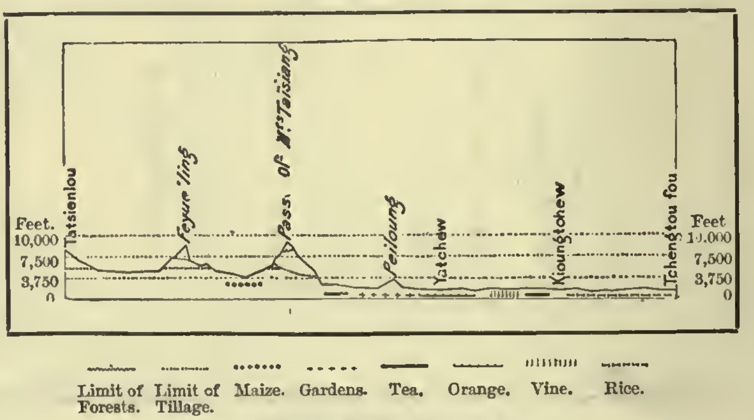
Scale of Heights decuple of Distances.

directions vast glaciers from its boundless snow-fields. With its spurs it covers the length of a whole day's march, during which the blue glint of the ice on its upper slopes remains constantly in view. East of the Nenda rise the scarcely less elevated peaks of Surung, which probably form a portion of the same system. East of the Yalung the crests of another range running parallel with the Surung all rise above the snow-line, and one of them towers some 4,000 or 5,000 feet above all its rivals. This is the Ja-ra, or "King of Mountains," and Gill declares that he "never saw one that better deserved the name." "Never before," he adds, "had I seen such a magnificent range of snowy mountains as here lay stretched before me, and it was with difficulty I could tear myself away from the sight." The range culminating with the Ja-ra is connected northwards with the highland region, forming a continuation of the Bayan-khara, and here also numerous peaks exceed Mont Blanc in altitude. Armand David even thinks that amongst them

may yet be found summits rivalling those of the Himalayas themselves. The best known at present are the Ngomi-shan, ascended in 1879 by the missionary Riley; the Siwelung-shan, or "Dragon of the Snows;" the neighbouring "White Cloud," 14,000 to 15,000 feet; the "Seven Nails," a seven-peaked pyramid, 18,000 to 20,000 feet (Gill); farther north the Shipangfang, apparently about the same height, with a side pass between two tributaries of the Min, 13,500 feet.

The West Sechuen and Tibeto-Chinese frontier ranges receive a sufficient quantity of moisture under the form of snow and rain. There being no higher elevations between them and the Bay of Bengal, they are exposed to the direct influence of the moist winds, and in some places, such as Litang and Mupin, there are said to be daily showers throughout the summer. Hence the vegetation is marvellously luxuriant, especially in the sheltered valleys. The slopes even of the higher valleys rising above the zone of arborescent vegetation are covered for three months with magnificent pastures, which disappear beneath the snow

Fig. 95.—From the Min Valley to Tatsienlu.
According to Gill.



Scale of Heights decuple of Distances.

during the long winters. Lower down there is a surprising variety of forest trees, some of which acquire proportions elsewhere unknown. Conspicuous amongst them is a yew rivalling the finest European firs in height. The rhododendrons acquire the dimensions of trees, and lovely azaleas grow to a height of 18 or 20 feet. Ferns, shrubs, and even trees find a footing on the almost vertical scarps, clothing the rocky slopes with their verdure and bloom. On emerging from a mountain gorge the traveller turns and looks in vain for the tract he has followed. Nothing is visible except a tangled mass of flowering lianes and bushy foliage. Every village in the valleys of the streams flowing to the Min is embowered in a thicket of fruit trees, walnuts, peaches, and apricots, and clusters of bamboo are found struggling up to an elevation of 5,000 feet. The vine and mulberry flourish in the Batang district at a height of no less than 8,500 feet, and sericulture might here be easily introduced, but for the fact that the devout Tibetan Buddhists would regard the destruction of the silkworm as a mortal sin.

The wild animals of this region, mostly of the same species as those of Tibet, have already disappeared from the greater part of the districts colonised by the Chinese. Hence, in order to study its rich fauna, Armand David took up his residence in the Miaotze principality of Mupin, at an elevation of 7,000 feet above the sea. Like the Tibetan plateaux, the Sechuen highlands abound in large ruminants, various species of antelopes, the musk deer and mountain sheep, some of which are hunted for their valuable horns, sold for their weight in gold. The wild yak roams in solitary dignity round about the grazing grounds of thousands of the domestic species, and the upland forests of Sechuen are frequented by the takin (*Budorcas taxicolor*), a variety of the ox, found also in the Eastern Himalayas. The white bear of Khachi is also met in the Mupin country, and probably on all the intermediate plateaux. Many even of the tropical animals have penetrated into these bleak highlands, amongst them a flying squirrel and two species of ape, one of which, the kintsin-hew (*Rhinopithecus Roxellanæ*), is almost as large as the apes of the Eastern Archipelago. It has a short face of a bluish-green colour, an upturned nose, and a cranium attesting a remarkable degree of intelligence. But the Mupin uplands are chiefly distinguished by the splendour of their avifauna. Here the loveliest pheasants, besides various gallinaceæ noted for their brilliant plumage, are found associated with numerous species more modestly adorned, as well as with the nightingale and other singing birds of the European type. Armand David's collection alone contains thirty new species, and no doubt many more remain to be discovered. In summer green parrots, probably from South Yunnan, find their way into the Upper Kinsha-kiang and Yalung valleys, so that at altitudes of 9,000 or 10,000 feet we still fancy ourselves lost amidst the dense woodlands of Indo-China.

Inhabitants of Sechuen.—The Si-Fan.

Most of the Alpine districts enclosed southwards by the great bend of the River of Golden Sand belong ethnically to Tibet, although politically separated from that region. The civilised inhabitants of the country are of Bod stock, like those of Lassa, with the same customs and the same social institutions. In Tibetan Sechuen, as in the province of Kham, the rivers are crossed by suspension bridges, or in movable seats slung from bank to bank on bamboo ropes. In Chinese Tibet the shepherds have also their black tents woven of yak hair, while the permanent dwellings are rudely built of undressed stone, pierced with narrow openings, and terminating with flat roofs. They are generally perched on solitary crags, where they have the appearance of ruined strongholds. The contrast is very striking between the Tibetan and Chinese villages. While the latter are generally grouped in compact masses, the former are scattered over a wide area, so that in districts occupied by both races all the enclosed towns are Chinese, the straggling suburbs Tibetan. Nevertheless the lamassaries, where hundreds and even thousands live together in a single community, are inhabited exclusively by Tibetans, with perhaps a few half-caste Chinese forsaken by their parents.

The lamas are the true masters of the land. Relatively more numerous even than those of Tibet itself, they own fully one-half of the soil, the finest herds of yaks and sheep, and multitudes of slaves employed as shepherds or husbandmen. The practice of usury has even rendered them the real proprietors of the lands cultivated by the laity. Membership is easily acquired in these religious communities of Sechuen. The fulfilment of a vow, the fear of vengeance, the desire to escape the imposts, any pretext will serve to gain admission as a novice, and thus gradually acquire all the privileges enjoyed by the confraternity.

But while the lamas are thus placed above the law and exempt from taxes of all sorts, the common people are all the more ruinously oppressed, and the imposts, distributed over a continually decreasing number of families, have already become almost unbearable. During the last hundred years the population subject to taxation has diminished fully to one-half, especially through migration to Yunnan; the country is covered with ruined houses and hamlets, certain districts have even been entirely depopulated, and extensive cultivated tracts have reverted to the condition of forest or pasture lands.

The still half-savage Tibetan tribes of the North Sechuen highlands are commonly designated collectively by the name of Si-Fan, or "Western Strangers." Clothed in skins or coarse woollen garments, and with their dishevelled locks falling in disorder over their shoulders, the Si-Fan present a ferocious appearance to the cultured Chinese of the plains. Yet they are far less formidable than they seem, and the stranger seeking hospitality amongst them never fails to meet with a friendly welcome. Lamaism has been introduced to a limited extent into their social system, and their priests possess books written in the Tangut character. Those of the Upper Hoang-ho, like many other wild tribes of the interior, and like many Chinese themselves, fancy that the Europeans can penetrate with their glance to vast depths in the land and water. They can also fly over the hills, and if they cross the plains on foot it is because they would be encumbered in their flight by the pack animals which they cannot dispense with. The chief of Sining asked Prjevalsky's interpreter whether it was true that his master was able to see the precious stones sparkling 250 feet below the surface of the earth.

The Mantze, Lolo, and Chinese of Sechuen.

Northwards the Si-Fan come in contact with the Amdoans, while towards the south and south-west they border on other tribes also of Tibetan origin, commonly known as Mantze, or "Indomitable Vermin." But the tribes which understand the meaning of this word reject it as an opprobrious term, and claim to be called I-jen; that is, "Different People," or "Strangers." One of these tribes, the Sumu, or "White Mantze," dwelling on the banks of the Luhoa-ho, a western tributary of the Min, numbers, according to Gill, as many as 3,500,000 souls, living on agriculture and stock-breeding. But however this be, there can be no doubt that the Mantze form a considerable element in the population of West China. Politically distinct from the surrounding tribes, the Mantze of Sechuen are grouped in

eighteen petty states, in which the authority of the kinglet is absolute. He raises a tax on the cultivated land as well as on the herds, and every family owes him the yearly tribute of six months' manual labour paid by one of its members. He disposes of the land at his pleasure, transferring it from one to another according to his caprice. The throne of the White Mantze, the most powerful of all these states, is always occupied by a queen, in grateful memory of the brilliant deeds performed by an ancestress of the reigning family.

The epithet of "Savage" applied to the Mantze is not justified, for they carefully till the land, weave textile fabrics, build houses and towers in the Tibetan style, possess Tibetan and Chinese writings, and support schools for their children. Towards the west Tibetan influence prevails, and here the lamas are fully as powerful as amongst the Si-Fan. In the east the Chinese are in the ascendant, and here many of the Mantze have shaved their shock heads and adopted the costume of the lowlanders. It is evident that the Mantze states will not be able long to resist the pressure of the Chinese colonists, who are continually encroaching on their domain. These colonists seize every pretext for declaring war against the "Savages" and taking possession of their lands. Thus the Mantze are undergoing the fate of all conquered races, and they are accused of committing the very crimes of which they are the victims.

In the great bend formed by the Kinsha-kiang between Sechuen and Yunnan dwell other tribes south of the Mantze, and like them threatened by the Chinese settlers. These are the Lolo, a name without any meaning in Chinese, unless it be a reduplicate form like the Greek "Barbar," indicating "stammerers" unable to express themselves in a civilised language. In any case, under this designation of Lolo, the Chinese confound a large number of tribes in Sechuen and Yunnan, all differing essentially from the Si-Fan, Mantze, and others of Tibetan stock. Edkins regards them as members of the Burmese family, and their writing system would seem to resemble the Pali current in Ava and Pegu. By Thorel they are divided into "White" Lolo, akin to the Laos people, and "Black" Lolo, whom he regards as the aboriginal element. They are generally taller and slimmer than the Chinese; their features are also sharper and more pleasant, at least according to the European taste. But in some valleys goître and cretinism are very prevalent affections. In the city of Ningyuen many of the Lolo have adopted Chinese ways, and some have even passed the examinations for the "civil service." But in the surrounding hills the tribes have preserved their independence, and are accordingly avoided by the Chinese traders and travellers, who pass north and south of their country. After centuries of warfare the colonists have failed to subdue these barbarians, whose chiefs have in very few instances consented to recognise the Imperial Government. Even the military stations established at intervals along the frontier do not prevent the Lolo from frequently swooping down from their eyries, and carrying off the salt and other supplies of which they stand in need. In the northern districts of Sechuen a half-caste race of Chinese, Si-Fan, and Mantze has been developed; but in the south no crossings have taken place between the rude Lolo and their cultured neighbours.

The portion of Sechuen occupied exclusively by the Chinese is limited by the slopes of the mountains rising west of the Min valley. East of this natural frontier the aboriginal elements have completely vanished from the land of the "Four Rivers," which was exclusively held by them some twenty-two centuries ago, before the advent of the first Chinese immigrants. Since then frequent massacres have taken place, and in the time of Kublai Khan most of the settlers were extirpated. At the Manchu conquest the country was again depopulated, after which fresh streams of migration flowed in, especially from the provinces of Shensi and Hupeh. Hence the population of the "Four Rivers" is of very mixed origin; but from the mixture has sprung a race endowed with special qualities. Of all the Chinese the people of Sechuen are perhaps the most courteous, kindly, and refined, and at the same time the most upright and intelligent. But although extremely industrious, they have little taste for trade, and the dealers in their country come either from Shensi or Kiangsi, the money-lenders and usurers from Shansi. The people of Sechuen also supply fewer of the lettered and military classes than perhaps any other province. Their practical common sense repels them from the official course of studies, in which so little true knowledge is entangled in an endless web of meaningless formulas. But as husbandmen and artisans they have placed their country at the head of all the provinces of the empire. Having taken little part in the Taïping war, they have had all the more leisure for developing their inexhaustible industrial resources. Their salines, petroleum wells, iron and coal mines are extensively worked, and the lowland districts are admirably irrigated, producing vegetables in greater variety and abundance than in any other part. For sericulture Sechuen is also unrivalled even in China, and so common is silk as an article of dress that on gala-days more than half of the inhabitants of the capital are clothed in this costly fabric. Not only the plains and undulating hills, but even the steep slopes with a gradient of 60°, are brought under cultivation. Thanks to the "foreign root"—that is, the potato—introduced by the missionaries apparently in the last century, tillage has been developed to an altitude of 8,000 and even 10,000 feet, and the cultivated lands have already been continued across the intervening ranges into the neighbouring provinces. The superfluous population of Sechuen is overflowing in the same direction, and thus returning to the surrounding lands more colonists than it formerly received from them.

The soap-tree, the tallow-tree (*Stillingea sebifera*), and many similar useful plants are here widely cultivated, and one of the most remarkable industries is that of the *pei-la*, or vegetable wax, which has to be carried on by a division of labour between the inhabitants of two distant districts. The insect (*Coccus pela*) which secretes the wax is born and reared on the leaves of the *Ligustrum lucidum* growing in the Kienchang country near Ningyuen. At the end of April the eggs are carefully gathered and brought to Kiating-fu, fourteen days distant, and at the other side of a mountain range. The difficult journey has to be made by night to protect the eggs from the heat. But after the journey begins the most delicate operation; for the eggs have now to be detached from the branch on which they have been conveyed, and transferred to the *Fraxinus Sinensis*, a tree of quite a different species,

Fig 96.—The Sechuen Highlands.

on which the insects are hatched, and secrete the highly prized white vegetable wax.

The Province of Kweichew.

East of the Min and its tributaries, the "Four Rivers," * rise the red sandstone and carboniferous ranges, all running south-west and north-east, the detritus from which has been strewn over the surface, imparting to it the ruddy tinge which has suggested to Richthofen its name of the "Red Basin." These ranges are connected with the crests separating the Min affluents from the valley of the Han-kiang, and which, according to Armand David, attain an elevation of 10,000 feet south of Hanchung-fu. This water-parting, known as the Lan-shan, falls gradually eastwards as it approaches the Yang-tze, disappearing at last in the lacustrine region, which receives the overflow from the Yang-tze and the Han.

South of the Great River the province of Kweichew presents in its general relief a form analogous to that of Sechuen. Thus towards the west it is commanded by a highland region, or rather a broken plateau, above which rise the snow-clad peaks of the Leang-shan, or "Cold Mountains." Southwards it is separated by border ranges from the Yunnan tableland, while the chain known to Europeans as the Nan-ling (Nan-shan), or "Southern Range," forms the water-parting between the Yang-tze and Si-kiang basins. In the interior of Kweichew the parallel ridges, running in the same direction as those of the Red Basin in Sechuen, have a lower mean elevation, while the waters of the Wu and other streams, having a less rapid incline, are here and there collected in swampy tracts, rendering the country very insalubrious. Marsh fevers and civil strife have been the chief causes of the backward state of Kweichew as compared with most other provinces of the empire. In the southern districts war, or rather "man hunting," is the normal state of the relations between the Chinese and the aborigines.

The Miaotze.

The Miaotze—that is, according to Morrison and Lockhart, the "men sprung from the soil"—formerly occupied the lowland regions, especially about the shores of Lakes Tungting and Poyang. Gradually driven by the Chinese intruders back to the hills, these Nan-man, or "Southern Barbarians," as they were formerly called, have settled mostly in the Nanling and surrounding valleys. Here they have been broken up by the intervening plains into numerous tribes, which have in the course of ages become differentiated to such an extent that it becomes difficult to recognise their common parentage. The Shu-king of Confucius divides the Miao into three main groups—the White, Blue, and Red. Certain tribes known by these names are still found in the South Kweichew highlands. But such epithets, derived from the colour of the dress, are probably no longer applied to the same tribes as those mentioned by Confucius. To the now scattered nation of the Miaotze also belong the Chung Miao, Ngnchung Miao, Kilao, Kitao, Tuman of Kweichew, Tung of Kwangsi, and the "eighty-two" tribes described in a Chinese work translated by Bridgman. Some of them take the name of the "Six

* These are the Min-kiang, the To-kiang, the He-shui (Black Water), and Pei-shui (White Water).

Hundred Families," perhaps to indicate their present dispersed condition. Several of the subject tribes have become gradually assimilated to the conquering race, and some Miao scholars have already passed the university examinations and been raised to the rank of mandarins. On the other hand, many half-caste Chinese live in the savage state, while the still independent Miao Seng have taken refuge in the mountain fastnesses. Here they have built their fortified villages on the hill-tops; but, with the exception of one or two marauding tribes, they remain mostly on the defensive. They cultivate maize, and even a little rice in the more sheltered districts. They also raise cattle, and are skilful hunters, exchanging the skins, hartshorn, musk, and other produce of the chase for the supplies brought by the hawkers and pedlars from the surrounding plains. Being of a haughty temperament and intolerant of injustice, the Miao are unable to endure the oppression of the mandarins, and are consequently in a chronic state of revolt. But their highland recesses are everywhere surrounded by Chinese settlements; the area of their domain is being continually encroached upon, and whole tribes have already been exterminated. During the late Taïping and Panthay insurrections the Chinese forces destroyed several of their villages, and many of their chiefs were sent to Peking, where they were beheaded after undergoing frightful tortures.

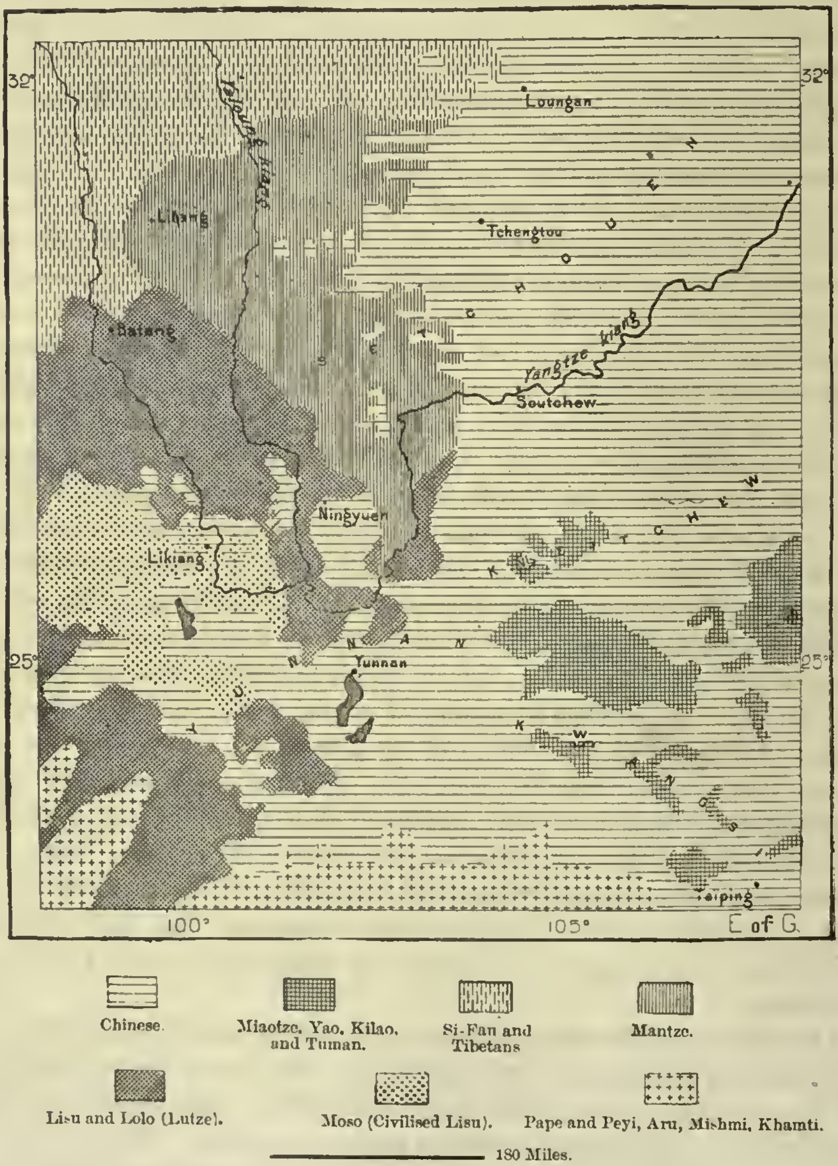
Not only are the Miaotze thus cruelly treated, but they are also accused of every crime, and scarcely regarded as human beings worthy of the least consideration. The Yao of the Lipo district, south of the Nanling range, are credited by their neighbours with short tails like monkeys, and there can be no doubt that some of the tribes have lost their former culture and relapsed into barbarism under the treatment to which they have been subjected. In certain places they dwell in caves or huts made of branches, or else in the fissures of steep rocks approached by bamboo ladders. Yet the Chinese annals, and even modern accounts, have spoken of the Miaotze as possessing a knowledge of writing, and composing works in their language written on wooden tablets or on palm-leaves. They are also skilful weavers, their women manufacturing fine silken, linen, cotton, and woollen materials in great demand amongst the Canton dealers. They are good musicians, playing on a kind of flute more agreeable than that of the Chinese. Some of the national dances, accompanied by drum and guitar, have a religious character, while others are highly expressive of sad or joyous emotions. But their great vice is drunkenness, which increases the contempt in which they are held by the people of the plains.

It is to be feared that the survivors of this ancient race will have disappeared before their true affinities have been determined. They are regarded as of Tibetan stock by most Chinese writers, who include the Miaotze amongst the Pa-Fan, or "Eight Strangers," of whom the Si-Fan are only a branch. Yet their language would seem to affiliate them to the Siamese family, in common with the Pai, Papeh, and other peoples of South Yunnan. In general of smaller stature than the Chinese, they have more regular features, and their eyes are round and straight like those of Europeans. Both sexes bind up their flowing hair like a chignon at the back of the head, while the women of some tribes gather it round a flat board, which serves to

shelter them both from sun and rain. All wear linen or woollen blouses and straw sandals, and the men often envelop their heads in turbans of some gay colour. There is no organized government, but disputes, if not amicably arranged, are usually referred to the arbitration of the elders, after which there is a final appeal to brute

Fig. 97.—Races of South-west China.

Scale 1 : 10,000,000.



force. Family feuds are often thus perpetuated to the ninth generation, and the victims are sometimes said to be devoured by the rival faction. Their Buddhist cult is associated with the worship of demons and ancestry. In some tribes the remains of the dead are removed from the coffin every two or three years, and carefully washed,

the public health depending, as they suppose, on the clean condition of the bones. Amongst others, deceased friends are mourned for, not at the time of death, but with the return of spring, when all nature is renewed. If the departed do not then return it is clear that they have forsaken their people for ever. The curious custom of the "couvade" is said to prevail in one of the Miaotze tribes. After childbirth; as soon as the mother is strong enough to leave her couch, the husband takes her place and receives the congratulations of their friends.

Hunan, Kiangsi, and Chekiang.

The highlands of Hunan, Kiangsi, and Chekiang have as yet been explored only at a few points. On most European maps of China winding ranges are traced between the river basins on the lines of the old Jesuits' charts, while the native maps show mountains scattered at haphazard in all directions. Into this chaos some order has at last been introduced by Pumpelly and Richthofen, who have shown that in an area of 320,000 square miles the south-eastern region of China is covered with heights which are neither anywhere blended in one continuous plateau, nor commanded by any central range of exceptional magnitude. Probably no other region of equal extent displays a similar labyrinth of mountains and hills varying so little in outline and elevation. Here open plains are rare, short and moderately elevated ridges occurring almost everywhere, with narrow intervening valleys connected at sharp angles with each other. Most of the eminences have a mean height of from 1,500 to 2,500 feet above the river beds, and even in the chief ranges no crests attain an altitude of 6,500 feet except perhaps in Fokien.

All these low chains run mainly south-west and north-east, like the Cross Ridges of the Upper Yang-tze. Hence throughout the greater part of their course the southern affluents of the Blue River flow north-eastwards to its right bank. From the Min confluence to the Yellow Sea the main stream itself develops a succession of three windings, in each of which the western segment follows the same direction parallel with the general axis of the land. Lastly, this is the line also traced by the indented seaboard of the provinces of Kwangtung and Fokien.

The main axis, to which Richthofen has given the name of Nan-shan, or "Southern Mountains," begins about the sources of the Siang, the chief influent of Lake Tungting. Beyond the gorges pierced by the Kia-kiang it develops into the massive Wukung-shan, forming towards the north-east the water-parting between the Yang-tze basin and the streams of Fokien flowing to the coast. To this main axis belong the Ningpo hills, which are continued seawards by the Chusan Archipelago. A submarine prolongation of the Nan-shan is even supposed to run between the Yellow Sea and the Tung-hai, or Eastern Sea, reappearing in the volcanic masses of the large island in the Japanese group. On either side of the broad marine strait the hills present the same outlines and formations, being uniformly composed of sandstones, schists, and limestones, probably of the Silurian period, with porphyry and granite cropping out at intervals.

The water-parting between the Yang-tze and Si-kiang basins traverses the

province of Kiangsi, far to the south of the mountains forming the main axis of the Nan-shan. To this water-parting have been given the names of Nan-ling, Mei-ling, Tayu-ling, from the various *ling*, or passes, leading from the northern to the southern basin. Of all the Chinese mountains the Mei-ling has been most frequently visited, for this range is crossed by the main route connecting the port of Canton with the central regions of the empire. According to the local saying, the Mei-ling is the "gullet" between North and South China. All the goods brought by the river craft to either foot of the hills are conveyed by porters over the pass, and as many as fifty thousand hands are said to be constantly engaged at this difficult point of the route. At the beginning of the eighth century, when the trade with the Eastern Archipelago had been greatly developed by the enterprising Arab merchants, this highway was constructed, or more probably repaired, by the Emperor Changkuling. Ritter estimated the height of the Mei-ling at 8,000 feet, but modern exploration has shown that this estimate is much too high. Still the passes in this region are everywhere so steep and rugged that all goods are carried across the hills by porters, pack animals being employed only in the neighbourhood of the large towns.

The parting-line between the peoples and languages of the north and south does not follow the water-parting between the two basins. It passes much farther north, here following the normal axis of the Nan-shan range, which is entirely comprised within the limits of the Yang-tze basin. Thus the traveller ascending the Kia-kiang River through the province of Kiangsi passes from the domain of the Mandarin dialect to that of the southern languages as soon as he has entered the defiles above Kingan. Hence, notwithstanding its low elevation, the main axis has played an important part in the distribution of the populations in this part of China. The division of the land into innumerable valleys has also had the effect of developing a multitude of isolated clans largely independent of each other. Except along the main commercial highways the inhabitants of the secluded Nan-shan valleys know nothing of the outer world, and most of them suppose that beyond their narrow domain the rest of the earth is occupied by savages, or is a prey to wild beasts.

The vegetation of Hunan and Kiangsi is naturally of a more tropical character than that of the Upper Yang-tze provinces. The aspect of the plants betrays the neighbourhood of the torrid zone, while even such trees as the oak, chestnut, and willow are of different species from those of North China and Mongolia. On the upland slopes the magnificent golden pine (*Abies Kæmpferi*) is distinguished by its great size from the other evergreens; lower down one of the most common trees is a much smaller pine with extremely narrow leaves. At the foot of the hills the camphor-tree is cultivated round about the villages jointly with the *Elæococca* and varnish plant (*Rhus vernicifera*). A great part of the country has been completely cleared of its timber, and in many towns the only available fuel is straw, dried herbs, or brushwood from the neighbouring hills. The woods are the property of the Emperor, say the natives, and they accordingly take all the wood they require for their houses and boats. But the hills are still clothed with a magnificent vegetation of shrubs and plants of small size. The Chusan Islands especially are transformed to a land of enchantment by the spring and summer flowers. In no other temperate

region, except perhaps in Japan, is there found such a surprising variety of plants remarkable at once for their exquisite foliage, brilliant blossom, and sweet perfume.

On the other hand, all the large wild animals have disappeared with the forests which sheltered them. The wild boar alone has again increased in number since the country has been wasted by the Taïping rebels and the Imperial troops. In some reedy islets of the Yang-tze a small species of deer (*Hydropotes*) is met bearing a remarkable resemblance to the musk deer, although separated from that animal by vast intervening spaces, and found nowhere else in China. The only domestic mammals raised in the country are the ox, buffalo, and pig. The heron is held in great veneration by the peasantry, and large communities of these birds are often seen, especially in the thickets surrounding the pagodas.

Inhabitants of the Lower Yang-tze Basin.

The Nan-shan is a highly favoured agricultural region. From the Lower Yang-tze provinces China draws most of its exports, and the chief tea plantations are found in the eastern districts of this basin. The tract stretching for some 360 miles from the banks of the Chang to the alluvial lands about the Yang-tze estuary, and including the southern slopes of the Fokien highlands, is pre-eminently the home of the tea plant. It is generally cultivated on the slopes with a southern aspect, not in continuous plantations, but either in small plots, or else in the hedges between the fields, and on the embankments between the rice grounds. The Yang-tze-kiang varieties are used especially in the preparation of the green teas. Sericulture is also widely developed in the Nan-shan and Lower Yang-tze regions, which take the first, or almost the first, rank not only for tea and silk, but also for rice and other cereals, as well as sugar, tobacco, hemp, oleaginous plants, and fruits of all kinds. The sweet potato is cultivated to the very top of the hills, and in the Nan-shan country cotton alone is not produced in sufficient quantity for the local demand. But the deficiency both in the raw material and in woven goods is amply supplied from the provinces of Chekiang, Nganhwei, and Hupeh.

The industrious character of the people is revealed in the allies they have procured for themselves in the animal kingdom. Like the English in mediæval times, they have domesticated the cormorant, turning to account its skill at fishing. Being furnished with an iron collar, to prevent them from swallowing the prey, these birds are trained to dart from the junks to the bottom of the river, returning each time with a fish in their bill. After the day's labour they roost in regular rows along both sides of the boat, thus maintaining its equilibrium. Elsewhere otters are employed in the same way, and pisciculture, a recent invention in Europe, has been practised for centuries in China. Dealers in the fry traverse every part of Kiangsi, supplying the tanks, where the fish are reared and rapidly fattened for the market. Some of the processes of this remarkable industry are still unknown in the West.

Such pursuits could only have arisen in the midst of teeming populations, and

towards the middle of the present century the provinces of Kiangsu, Nganhwei, and Chekiang were found to be the most densely peopled lands in the whole world. According to the returns for 1842 Chekiang had a population of no less than 26,000,000, or upwards of 560 to the square mile. But after the late massacres, followed by famine and pestilence, the survivors were estimated by Richthofen at no more than 5,500,000. Yet even this would be a higher proportion than that of France, and the country is now being repeopled with surprising rapidity. The wasted plains of Chekiang have been occupied by immigrants from the provinces of Honan, Hunan, Kweichew, Sechuen, and especially Hupeh, and the new settlers, speaking various dialects of the Mandarin language, do not always understand each other. But harmony is being gradually established, and the common speech resulting from these diverse elements resembles the Mandarin standard far more than did the old local variety. Thus it is that the mixtures following every great convulsion contribute more and more to the remarkable national unity presented by the inhabitants of China. The only formality required of the new settlers on abandoned lands is the payment of a nominal sum to the *punti jen*, or nearest representative of the former possessors. After two years the soil becomes their absolute property.

Topography.

Since the recent troubles the number and size of the towns in the Yang-tze basin have been much reduced. Yet several still remain which rank amongst the largest cities in the world; but these are naturally found only in the fertile regions below the Upper Kinsha-kiang.

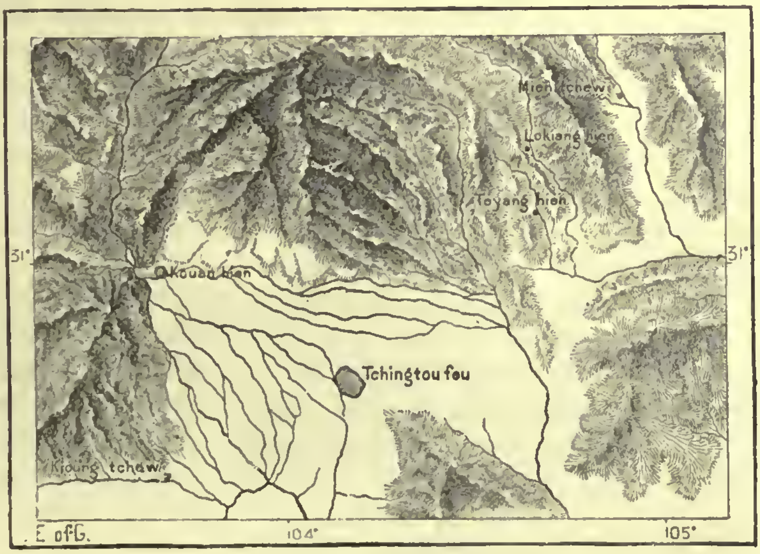
In the part of Sechuen commonly included in East Tibet the chief place is *Batang*, which was completely ruined by a series of earthquakes in 1871. It now consists of a few hundred new dwellings standing in a fertile plain, watered by an eastern affluent of the Kinsha-kiang, and by copious hot springs. Nearly half of the people are lamas, living in a sumptuous monastery with gilded roof, and the place has no importance except as a station on the great highway between Central China and Lassa. Here the traders from the East exchange their brick tea and manufactured wares for the musk, borax, peltries, and gold-dust of the native Tibetans. These are under their own magistrates, and controlled by a Chinese garrison, while the surrounding hills are occupied by the completely independent Zendi tribes. *Litang*, another mart on the route between Tibet and Chingtu-fu, is one of the most wretched places in the world, lying in a depression of the Kichu basin over 13,000 feet above the sea at the limit of the vegetable zone. In this cradle of the Tibetan monarchy nothing grows except a few dwarf cabbages and turnips, yet here reside some 3,500 lamas in a rich monastery all covered with gold-leaf. *Tatsientu* (Tachindo) lies some 5,000 feet lower down, in a pleasant valley watered by a tributary of the Min. Here is the custom-house on the Tibetan frontier, besides a Chinese garrison and several Buddhist or Mohammedan traders from Shansi. Yet the nominal ruler of the country is a Mantze king,

CHINESE MINERS—UPPER YANG-TZE HIGHLANDS.

whose territory stretches southwards to the Lolo domain. Chinese women are not allowed to cross this state to enter Tibet, but they are numerous in Tatsienlu, where the Tibetan element is mainly represented by half-castes. Tatsienlu is the present centre of the Roman Catholic missions for Tibet.

Below Tatsienlu, the Tatu-ho River, after emerging from a formidable gorge with sheer walls 650 feet high, reaches the walls of *Luting-chao,* the first city lying completely beyond the Tibetan and Mantze lands. Beyond this point it is joined by several tributaries, the united stream forming the Tung-ho, the chief affluent of the Min, and even exceeding it in volume. The Min is navigable by boats at all seasons as far as *Kiating-fu,* at the confluence of both rivers. This place is one of the chief marts of Sechuen, whence the *pei-la,* or valuable vegetable

Fig. 98.—Chingtu-fu Basin.
Scale 1 : 1,900,000.



30 Miles.

wax, is forwarded to all parts of China. It also receives by water the raw silk of *Yachew-fu,* lying to the north-west on the route between Tibet and Chingtu-fu. Here is prepared most of the brick tea intended for the Tibetan market. In the neighbourhood is cultivated a species of the plant whose coarser leaves are used in this traffic. Yachew is the chief stronghold and largest military depôt on the frontier. In 1860 it held out successfully against the Taïping rebels, without the aid of the Imperial troops.

Chingtu-fu, capital of Sechuen, still remains what it was in Marco Polo's time, a "rich and noble city," although since then more than once plundered and even destroyed. Nearly the whole population, said to have exceeded one million, was exterminated by Kublai Khan. The present city is of recent origin, the Imperial Palace, probably its oldest building, dating only from the fourteenth century. The

walls and most of the houses were rebuilt towards the end of the last century, after the place had been wasted by a great fire. Few towns cover a larger area, vast suburbs stretching far beyond the enclosure, which is itself 12 miles in circuit. Like most provincial capitals, it consists of a Chinese and Manchu quarter, of which the former is by far the largest and wealthiest. Chingtu is the "Paris of China," the finest and most elegant city in the empire, with broad, straight, and regular streets, lined by handsome wooden houses with gracefully carved façades. The red sandstone arches erected at several points are also covered with fine sculptures in relief, representing fabulous animals or scenes of social life. The natives have also the reputation of being the most highly cultured and the greatest lovers of the arts and sciences in China. The surrounding plain, one of the best-cultivated tracts in the world, is well watered by countless irrigating rills from the Min and its tributaries. This district contains as many as eighteen other cities with the rank of *chew* or *hien*, besides several other unwalled towns and villages with more inhabitants than many commercial marts. A population of perhaps 4,000,000 is crowded together in this basin, within an area of less than 2,500 square miles. The capital is at once a great agricultural and industrial centre, with thousands of hands engaged in weaving, dyeing, and fancy work. Some 36 miles to the south-west stands *Kiungchew*, at the foot of the mountains skirting the plains, where is manufactured the best paper in China. In the Upper Min valley lies *Sungpan-ting*, near the Kansu frontier, which has a vast Mohammedan population, notwithstanding its elevation of nearly 10,000 feet above the sea.

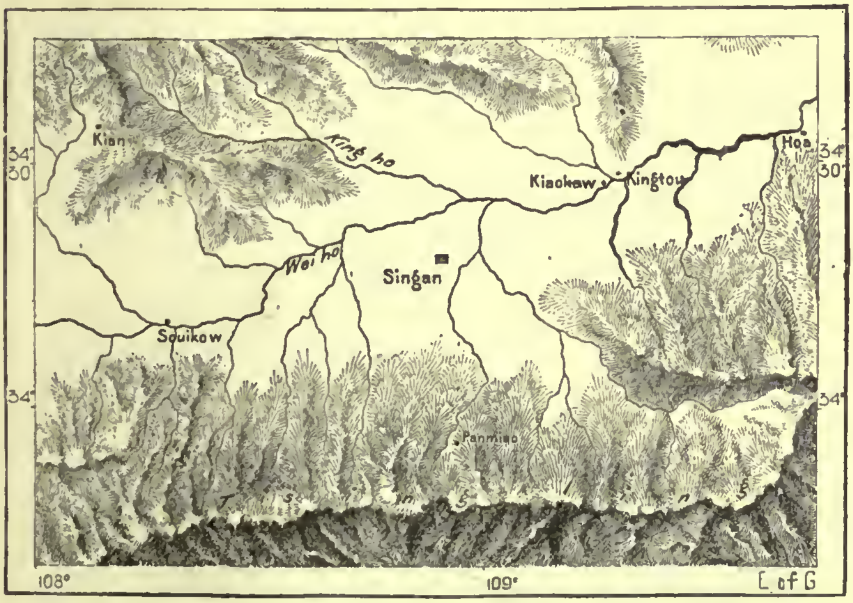
The road leading from Chingtu across several ranges north-eastwards to Shensi, and known as the *Kinniu-tao*, or "Route of the Golden Ox," is said to have been traced some twenty-three centuries ago, in order to connect the two kingdoms of Tsin and Shu—that is, of North China and Sechuen—which were not yet grouped in one empire. The highway from Chingtu-fu to the basin of the Yellow River remained unfinished for six hundred years, when the road from Hanchung over the Tsing-ling to Tingan was opened by the Sechuen Emperor Liupi, whom legendary history has transformed to a sort of Chinese Hercules.

The Kinsha-kiang regions cannot be compared with the Min basin for the importance of their urban populations. Yet even in this part of Sechuen there is at least one large city never yet visited by any European, except possibly by Marco Polo. This is *Ningyuen*, the chief place in the flourishing valley of the Kienchang, which joins the Yalung near the confluence of this river with the Kinsha-kiang. The Chinese speak of this place and of the surrounding district as an earthly paradise, presenting a marvellous contrast to the rugged mountains enclosing it on all sides.

Pingshan marks the extreme point reached by Blakiston during his exploration of the Yang-tze. But a more important place is *Suchew* (Sui-fu), at the junction of the Min and Kinsha-kiang. This is the entrepôt for all the produce of Yunnan exported to the interior of China, and here are manufactured mats noted for their strength and pliancy. The coal mines above and below Suchew yield the best coal in the whole Yang-tze basin. Farther down *Luchew*, at the confluence of the

Fusung, is a depôt for the salt from the famous salines of *Tzuliu-ching*, some 60 miles farther north-east. This remarkable salt district, recently visited by Gill, comprises a tract over 6 miles broad, everywhere pierced by pits hundreds of yards deep. Gill saw one which had already been sunk to a depth of 2,170 feet through sandstone and argillaceous strata. The work, which advanced at the rate of about 2 feet daily, had been in progress for thirteen years, although frequently interrupted by the breaking of the boring machines. Other wells have already been carried to a depth of 940 yards, and Gill mentions a brine-pit "two thousand and some

Fig. 99.—The Tsing-ling and Singan.
According to Klaproth. Scale 1 : 1,700,000.



30 Miles.

hundreds of feet in depth, and about 3 inches, or perhaps a little more, in diameter at the top."

Most of the bores tap the brine at depths of from 600 to 1,000 feet, beyond which they reach the petroleum reservoirs. Inflammable gases escape from these with great violence, whence the term "fire well" commonly applied to these pits. In 1862, when the country was invaded by the rebels, one of the pits took fire, and burnt for a long time, illuming the whole country like a lighthouse. According to Gill, the district is pierced by at least 1,200 wells, yielding from 80,000 to 120,000 tons of salt yearly. Most of the mines belong to wealthy corporations, but the bulk of the people are extremely poor. Few places present a more wretched appearance than Tzuliu-ching, whose industry enriches the capitalists of Chung-cheng. Recently some of the master miners, associated with a company of European traders, attempted to introduce English pumping engines to economize

time and labour. But the experiment caused a strike amongst the workmen, who drove the innovators from the country.

Chung-cheng (Chung-king) is the great emporium of East Sechuen. Picturesquely situated on the left bank of the Yang-tze at the junction of the navigable river Pa-ho (Kialing), this city has become the chief depôt for all the produce of Sechuen and for the manufactured wares imported from the East. It does a larger trade, especially in silks, tobacco, vegetable oils, and musk, even than the provincial capital itself. This "Shanghai of West China" has its exchange like

Fig. 100.—Course of the Yang-tze above the Gorges.

According to Blakiston. Scale 1 : 1,000,000.

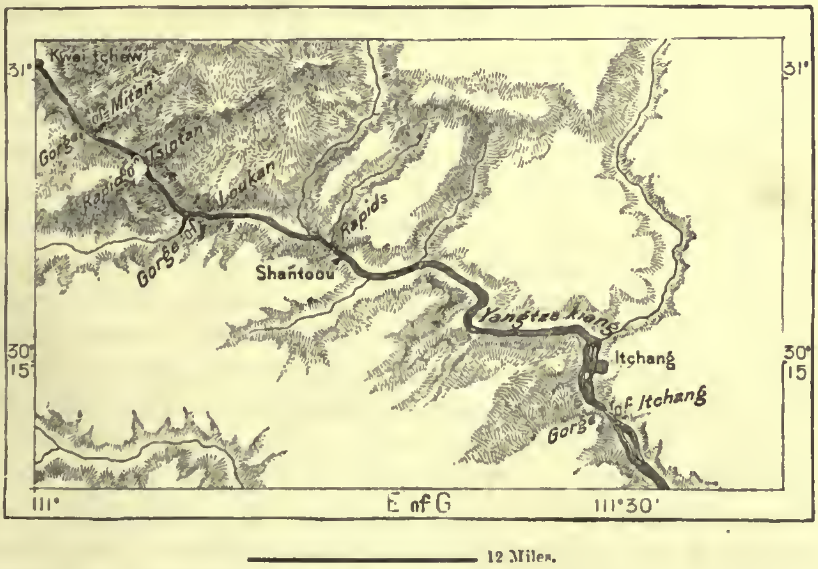
the European towns, where current prices are regulated, and here is also a silver refinery, which works up ingots to the daily value of some £4,000. Chung-cheng really consists of two distinct towns, both ranking as administrative centres, Chung-cheng proper and *Kiangpeh* (Limin), west and east of the confluence, besides a vast suburb on the right bank of the Yang-tze. Most of the wholesale dealers are strangers from Shensi, Shansi, and Kiangsi, and an English Consul has been stationed here since 1878. At the beginning of the century the population was estimated at 36,000, in 1861 Blakiston raised it to 200,000, and according to

the latest returns this figure has been more than trebled. North of Chung-cheng the busy town of *Ho-chew* occupies a convenient position near the junction of the three head-streams of the Pa-ho. In the neighbouring hills is a fatty earth, which in times of distress is kneaded into small loaves, baked on charcoal fires, and largely consumed in all the surrounding districts.

Below Chung-cheng the large emporium of *Fuchew*, stands at the confluence of the Kungtan, or Kien-kiang, and thus commands all the navigable waters of the province of Kweichew. Most of the junks stop at the Kungtan Rapids, beyond which a few flat-bottomed craft alone ascend as far as *Kwei-yang*, capital of Kweichew. This city lies near the source of the river, and communicates across low water-partings on the one hand with the Si-kiang basin, on the other with that of the Yuen, an influent of Lake Tungting. In the neighbouring highlands are some

Fig. 101.—I-chang Gorges.

According to Blakiston. Scale 1 : 600,000.



independent Miaotze tribes, who have been partly evangelized by the Catholic missionaries. In a mountain gorge near Nganshun in this region a torrent is precipitated from a height of several hundred yards. Here also quicksilver occurs, probably in greater abundance than elsewhere, and in many places lumps of cinnabar are constantly turned up by the plough. But since the sanguinary outbreak of 1848 the mines have been closed, and in 1872 they were still under water.

The pleasant city of *Kweichew-fu* is situated, not in the province to which it gives its name, but within the Sechuen frontier on the left bank of the Yang-tze, at the upper entrance of the gorges which terminate lower down at *I-chang*, in the province of Hupeh. I-chang, where is produced the best opium in China, is the most inland city opened to direct trade with foreigners. A European settlement was established here in 1878, and since then its trade has rapidly increased.

The exports consist mainly in coal, medicines, and drugs of all sorts. Although lying 1,000 miles above Shanghai, this place is now regularly visited by a Yang-tze steamer, which usually finds 20 feet of water as far as the rapids. Most of the Sechuen boats discharge their cargoes either at I-chang or at *Shazi*, lower down, whence the merchandise is conveyed in larger craft to Hankow. Before the introduction of steam navigation, Shazi, which stretches for over 3 miles along the river, had a larger trade than I-chang, and it still enjoys the advantage of direct communication through the navigable Taïping Canal with Lake Tungting. Near Shazi stands the stronghold of *Kinchew*, on the left bank of the Yang-tze, a place already mentioned by Confucius, but now possessing merely an administrative and military importance.

The great cities of Hunan lie not on the Yang-tze, but in the interior, along the routes between the Yang-tze and Si-kiang basins. Here one of the main water highways is the river Yuen, flowing to Lake Tungting, and connected by canal with other navigable waters. But most of the large junks on the Lower Yuen get no farther than *Chachew-fu*, the chief emporium of West Hunan. Farther down, the thriving city of *Changte-fu*, 36 miles below the first rapids of the Yuen, is accessible throughout the year to river craft of the largest size. But a much more important place is *Siangtan*, which, though not the capital, is the chief city in Hunan, and one of the great marts of the empire. It stands on a rapid of the Siang, stretching for 3 miles along the left bank of the river, and with vast suburbs radiating in every direction. Thousands of junks, from 25 to 30 tons burden, are constantly anchored in front of the city, while lighter craft are able to pass beyond the rapids much farther up. Siangtan, which occupies the most central point in the eastern or richest division of Hunan, is the natural entrepôt of the traffic between the central and southern provinces, through the vitally important Kwei-ling, Che-ling, and Mei-ling Passes. It thus lies in the very heart of the vast triangular space formed by the three great emporiums of Chung-cheng, Hankow, and Canton. It has also become the chief centre of the trade in medicines and all kinds of drugs for the whole of China. The surrounding tracks are constantly blocked by caravans exclusively laden with roots, herbs, pills, and an endless variety of nostrums required to meet the prodigious demand in a country where these things are far more highly esteemed than amongst any other people. The commercial revolution brought about by the opening of the treaty ports and the introduction of steam navigation must, no doubt, ultimately diminish the relative importance of Siangtan, which lies off the main line of this traffic. But the loss may be more than repaired by the development of the coal-mining industry in a region where the carboniferous deposits rival those of Pennsylvania in extent. The bituminous coal of the immediate neighbourhood is little valued, but the anthracite of *Luiyang*, in the Lui basin, is amongst the best known. Thousands of boats are employed in transporting it to Siangtan and the Yang-tze, whence it reaches Hankow and Nanking. The annual yield of the Lui-ho mines has been estimated by Richthofen at about 150,000 tons.

Changcha, capital of Hunan, lies on the Siang, midway between Siangtan and

HANKOW—HAN-KIANG AND YANG-TZE CONFLUENCE.

Lake Tungting. On a hill facing the city stands the college of Yolo, one of the most renowned in China, where over one thousand students, from twenty-two to twenty-five years of age, pursue their studies in private, consulting their teachers only in the case of extreme difficulties. Below Changcha a granite ridge crossing the Siang is largely used in the manufacture of flags and mortar, while the argillaceous sand is in great demand amongst the numerous potteries of Tungkwan. Here are produced enamelled tiles of all colours, and covered with fanciful designs, much used for the roofs of temples and houses in Hunan and the surrounding provinces. Lower down *Siangyin* may be regarded as the upper port of Lake Tungting, while its outlet is commanded by *Yochew*, which stands on a cliff overhanging the right bank of the Yang-tze.

Before the middle of the present century the three cities of *Wuchang-fu*, on the right bank of the Yang-tze; *Hankow*, over against it, east of the Han confluence; and *Hanyang-fu*, in the peninsula formed by the junction of the two streams, constituted probably the largest collective urban population in the whole world. London, which now knows no rival in this respect, had at that time scarcely more than two millions, whereas, before the Taïping ravages, these three vast hives of human industry are said by some travellers to have had a joint population of eight millions! But however this be, the number had been reduced to below one million when Blakiston ascended the river in 1861. Of the three cities, Hankow, capital of Hupeh, is alone enclosed by ramparts, which comprise an area of over 15 square miles. Beyond the walls the suburbs stretch along both rivers, while the connection with Hanyang is completed by a multitude of junks, forming a living bridge from bank to bank. Even the main stream, here nearly a mile wide, is covered with craft, amongst which are numerous English and Chinese steamers. As a trading-place Hankow enjoys special advantages, standing as it does at a central point on the navigable course of the Yang-tze, and at the confluence of the Han-kiang, which gives direct access to the Hoang-ho basin and the province of Shensi. Hankow—that is, "Han Mouth"—may even be said to command the course of the Siang and the whole of the Tungting lacustrine basin. Standing thus at the converging point of the great navigable arteries running east and west, north and south, Hankow is the true commercial centre of China. The only drawback to its advantageous position is the danger it runs from the inundations of the Yang-tze. When the embankments give way its streets are flooded, and the people seek refuge on the surrounding hills and artificial mounds scattered like islands in the midst of a vast inland sea.

No other city of the interior has such a large foreign population as Hankow. A fine European quarter, separated from the river by an extensive open space planted with trees, overlooks the native city. Vast works have here been undertaken to raise the land above the level of the inundations; and a so-called "bund," or embankment, 50 feet high, now protects the European concession from this danger. Hankow is the chief centre of the tea trade in China. The foreign settlement may almost be said to depend on the oscillations in the current prices of this article. The arrival of the first crop is the signal for a general commotion;

crowds swarm in the warehouses and counting-houses, steamers are moored along the embankment, night and day streets and squares are alive with the busy throng. All this bustle lasts for three months during the very hottest and most relaxing season of the year; and the excitement grows to fever heat towards the end of May, when the vessels bound for London have completed their cargoes. For the betting on the quickest homeward passage earns for the winner not merely an

Fig. 102.—Wuchang: View taken from the Tower of the Yellow Crane (Hoang-ho-lew).

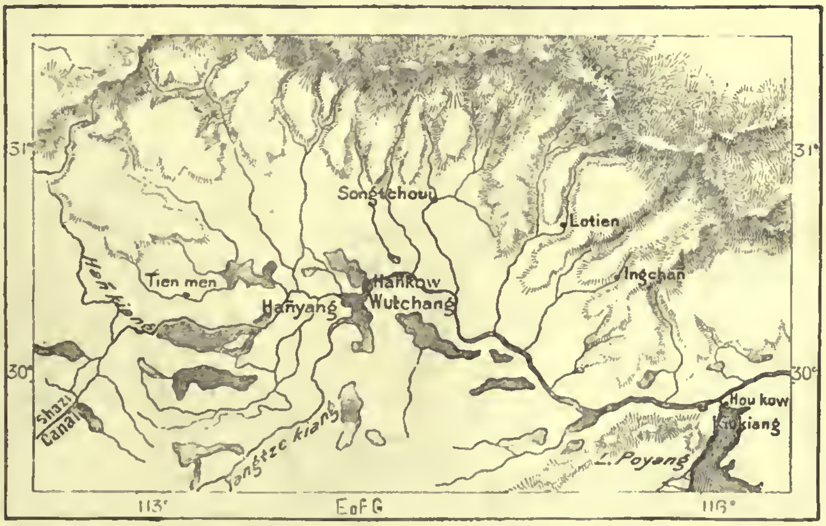
empty triumph, but double the ordinary freight. After the start silence reigns in the European quarter, which is now deserted except by a few clerks and employés. The native merchants deal exclusively in tobacco, hides, and other local produce, including opium, which is now mixed with that of India for consumption in China. The Russians, who buy both the best and the worst sorts of tea, have made Hankow the centre of their operations for the purchase and preparation of the brick tea. But the direct overland trade between Hankow and Siberia, through Singan and

A STREET IN KIN-KIANG—TYPES AND COSTUMES.

Mongolia, dates only from the year 1879. The teas intended for Russia are shipped at Shanghai either directly for Odessa or for Tientsin, whence they are taken by caravan to Kalgan and Kiakhta. Hankow is destined one day to be the terminus of the highway from the Upper Irtish through Kansu to the Yang-tze-kiang basin. Negotiations have already been set on foot with a view to the opening of this route, which will itself be replaced sooner or later by the great Central Asiatic trunk line of railway. Meantime the direct seaward trade of Hankow is represented by over fifteen hundred vessels, with a tonnage of nearly a million, of which less than one-half is Chinese, and most of the rest British.

Along the banks of the Han the chief ports are *Hanchung-fu*, a former imperial capital; *Sinpu-wan*, noted for its steel works; *Chichiatien*, at the head of the navi-

Fig. 103.—Hankow and surrounding Lakes.
Scale 1 : 3,750,000.



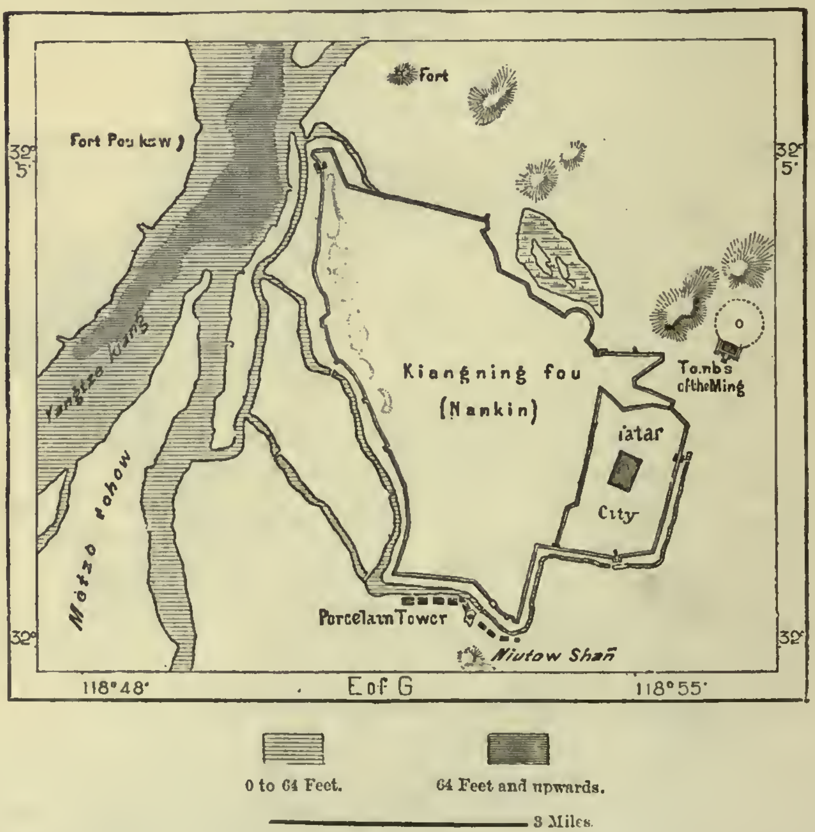
60 Miles.

gation, over 4 miles in circumference; *Laoho-kow*, with a large cotton trade; and 54 miles lower down the twin cities of *Siangyang-fu* and *Fang-cheng*, on the right and left banks respectively, near the confluence of the Tang-ho and Peï-ho, which give access to the rich plains of Honan and the Hoang-ho basin. Midway between Fang-cheng and Hankow is the busy port of *Shayang-chen*, where Richthofen saw as many as five hundred large junks moored to the quays. Most of these places stand at some distance from the Han to avoid its disastrous floodings.

Below Hankow the narrow rocky peninsula between Lake Poyang and the Yang-tze is occupied by *Kin-kiang*, or the "City of the Nine Rivers," which does a large trade in tea and tobacco, and where there is a European quarter, protected like that of Hankow by a strong embankment of recent erection. *Nanchang*, capital of Kiangsi, lies in a fertile plain at the head of the delta of the Kia-kiang

(Chang), and at the converging point of several important trade routes. Here are some of those triumphal arches raised in so many places to the memory of illustrious women. Nanchang is a chief centre of the porcelain industry, and no less than five hundred factories were at work in this district during the last century. The porcelain of *Kingte-chen,* in the Chang-kiang valley east of Lake Poyang, is still the most highly esteemed in China, yet it is now far inferior to the European ware in paste, form, and design. In the eastern and south-eastern valleys towards the Fokien frontier the exquisite teas are produced which are named from the city of

Fig. 104.—N..NKING.
Scale 1 : 140.000.



Hokow. In the north-east rises the Seunglo-shan Mountain, where was discovered the art of utilising the tea-leaf.

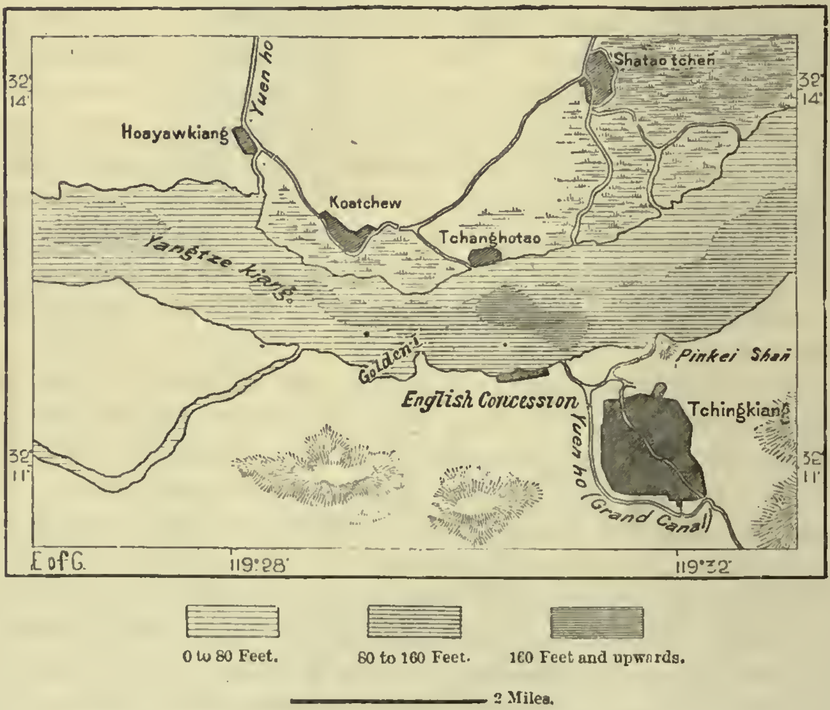
One of the finest cities on the Lower Yang-tze is *Nganking* (Anking), capital of the province of Nganhwei. Farther down are the treaty ports of *Tatung* and *Wuhu,* both on the right bank. The latter produces a red yarn known throughout the empire, and is also noted for its knives and other articles in steel, which, however, are very inferior to those imported from England. In the neighbouring district is manufactured some of the best paper in China, chiefly from the bark of the tallow-tree and mulberry.

Nanking, capital of Kiangsu, and residence of the Viceroy of Kiangnan—that is, of the two provinces of Kiangsu and Nganhwei—was formerly the metropolis of the empire, and long the largest city in the world. Even after the removal of the court to Peking it rivalled the northern capital in its population, trade, and industry. In 1853 it again for a moment became a royal residence, the "Heavenly King," or sovereign of the Taïping rebels, having chosen it for his capital. But after an obstinate siege of two years it was captured in 1864 by the Imperial forces, its surviving defenders put to the sword, and the place converted into a heap of ruins. Yet a few years of peace have sufficed again to restore Nanking to its place amongst the great cities of China. The area included within its enclosures, some 18 miles in extent, still comprises many open spaces, waste grounds, and piles of débris, where the snipe, pheasant, and even large game are pursued. A Government arsenal has recently been established in the neighbourhood, and several factories have again resumed the manufacture of the cotton fabric formerly known as "Nankeen." Here are also produced the finest satins in China. Nanking, or Kiangning-fu, as it is officially called, has resumed its position as the metropolis of letters and learning, and as many as twelve thousand students here undergo their yearly examinations. Large libraries have been again collected, and new printing-offices opened, with Chinese and European appliances. Amongst the recent immigrants, the Mohammedans are said already to number over fifty thousand. Except its ramparts, Nanking has lost all its famous monuments, including the celebrated "Porcelain Tower," which was destroyed during the Taïping war.

The commercial enterprise of the province of Kiang-su has been chiefly concentrated in the city of *Chingkiang*, lying east of Nanking, and also on the right bank of the Yang-tze, at the southern terminus of the Grand Canal. It also communicates by water with Shanghai, and is the converging point of several extremely important trade routes. Hence the rapidity with which it has recovered from two disasters during the present century. In 1842 the English army, after the victory followed by the treaty of Nanking, found Chingkiang converted into a city of the dead. Its Manchu defenders had destroyed their women and children, and then made away with themselves, in order to escape the hated rule of the "red-headed barbarians." In 1853 the place was taken by the Taïpings, and the inhabitants four years afterwards massacred by the Imperialists. As in Nanking, nothing remained except the ramparts and a few of the wretched survivors crouching amid its ruins. Yet Chingkiang has already become the second port in China for the importation of foreign goods. On the opposite side of the river formerly stood the large city of *Koachew*, where the Government had established its chief salt depôt on the Yang-tze. But this place has been washed away by the erosion of the stream, and now nothing remains except a few houses. *Yangchew*, a little farther north, on the Grand Canal, was the old capital of the Yang kingdom, which, according to some etymologists, gave its name to the Yang-tze-kiang. This is the "great and noble city" of Yanju, governed for three years by Marco Polo.

Shanghai, the nearest seaport to the Yang-tze estuary, has become the first commercial mart in the empire, and in all Asia knows no superior except Bombay. Yet when in 1842 the English chose this place for their factories, it seemed difficult to believe that they could ever convert it into a rival of Canton or Amoy. It was doubtless the outport of *Suchew* and the rich surrounding district, and it had also the important advantage of commanding the entrance of the great water highway which traverses the whole empire from east to west. But there were formidable difficulties of soil and climate to contend against. The very ground on which it stood had to be raised and consolidated; canals had to be cut, lagoons drained, the navigable channel dredged, the atmosphere purified from its miasmatic

Fig. 105.—Chingkiang.
Scale 1 : 110,000.



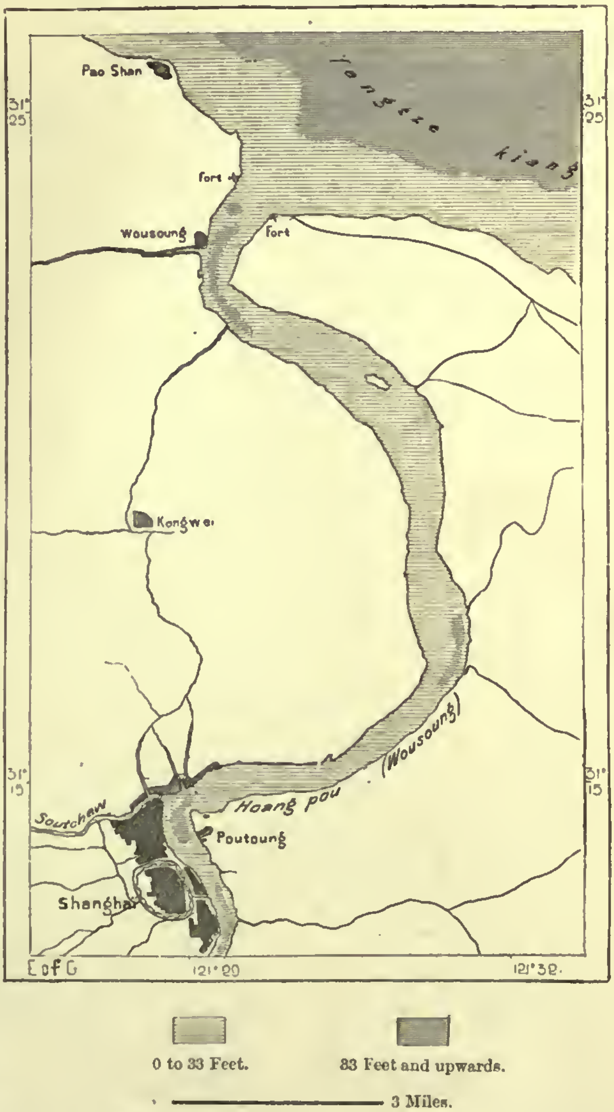
exhalations. Most of these improvements have been successfully carried out; but a dangerous bar still separates the Yang-tze estuary from the Hoang-pu, or river of "Yellow Waters," on which Shanghai is situated. The evil has even increased during the last decade, and vessels of deep draught do not now ascend the Hoang-pu to the city. Unless the Chinese Government allows the necessary works to be undertaken to keep open the navigation, Shanghai runs the risk of sooner or later getting lost on the margin of a marshy creek in the interior. To bring about this result, all that is needed is a further slight geological change in a tract where the alluvia of the Yang-tze and the marine waters are struggling for the ascendancy. According to the local tradition, Shanghai formerly stood on the sea-coast, from

which it is at present 24 miles distant. It is much exposed to the "yellow wind" from the north and north-west, charged with the dust of the desert.

The traffic in the local produce made the fortune of the first European settlers at Shanghai, who flourished, so to say, on the national disasters. The Taïping war drove thousands to take refuge on the land ceded to the foreigners, and when Suchew was destroyed in 1860, Shanghai took its place as the foremost city in the country. But after the overthrow of the rebels the population flowed back into the interior, and the number of native inhabitants fell from half a million to 65,000. Nevertheless, Shanghai became the chief depôt for the distribution of European imports throughout the empire. The English "Concession," which enjoys the privilege of self-government, is the "model colony, the republic of the Hoang-pu." The territory conceded to the Americans to the north of the Suchew River has been united since 1863 to the British municipality, which is also occupied by over a hundred thousand natives, as well as by most of the French residents, glad to take refuge here from the despotic power of their consul. South of the Chinese quarter lies the suburb of *Tongkatu*, while the opposite or east bank of the river is occupied by *Puntung*, often called the "Little Europe," from its numerous native Christian population.

Fig. 106.—Shanghai and the Hoang-pu.

Scale 1 : 175,000.



Shanghai does a very large export trade in tea, chiefly to England and America, and in silk mainly to France, while opium forms by far the most important item in its imports. Five lines of river steamers have their head-quarters at this

station, which also owns forty coasting steamers. This is the only Chinese city which possesses dockyards, where merchant vessels are built under the direction of European engineers. Here also a cotton-spinning mill, a tannery, and some other industries were established in 1879 on the European model. The coal mines of the Yang-tze yield sufficient fuel for all the steamers plying on the river, and are

Fig. 107.—Shanghai.

Scale 1 : 41,000.

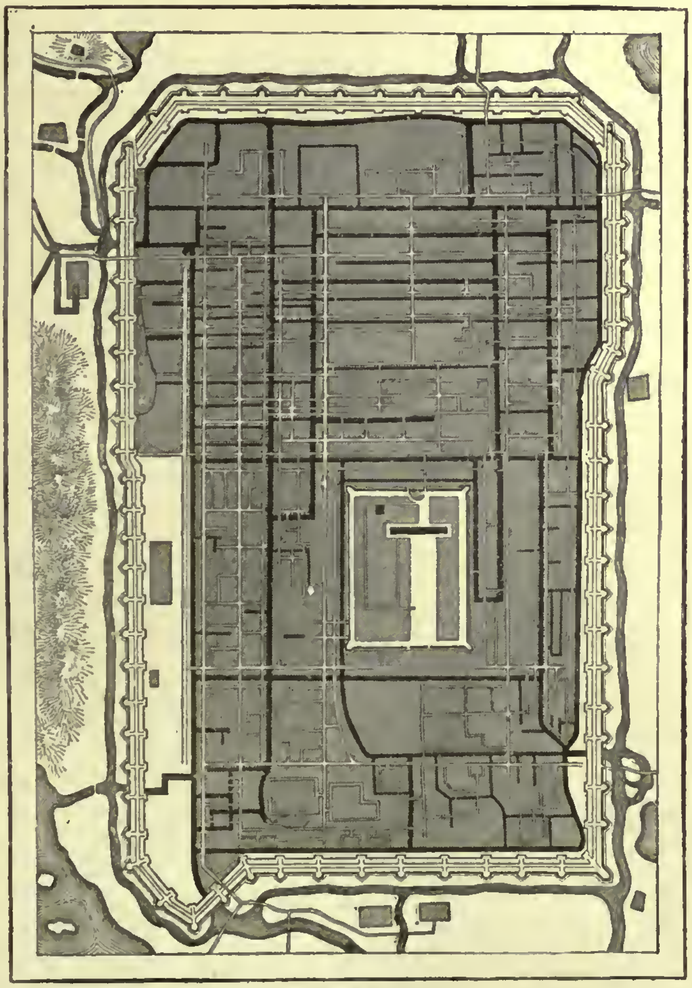
0 to 16 Feet. 16 to 32 Feet. 32 to 80 Feet. 80 Feet and upwards.

1,100 Yards.

gradually replacing the foreign coal in Shanghai itself. The city is traversed by tramways, and the racecourse is surrounded by fine avenues, which are continued as far as the "Bubbling Well," a hot spring discharging sulphuric acid gas. Broad macadamised roads radiate for 6 or 7 miles round to the villas and country seats of the foreign and native merchants; but the Government has not yet

allowed these routes to be continued farther inland. Even the short railway (9 miles long), the only one in China, recently built by an English company between Shanghai and Wusung, on the Yang-tze estuary, was bought up and destroyed by the authorities after a short and useful career of six months. The terminus and goods station at Wusung have since been replaced by fortifications armed with heavy guns. Nevertheless the imperial administration must sooner or

Fig. 108.—Suchew before the Taïping War.



Canals and Bridges.

later yield to the force of circumstances, and withdraw its veto from the plans of the foreign engineers. The surveys for a railway from Shanghai to Suchew, and even to Hangchew, have already been completed, and now only await the imperial sanction. A telegraphic line connecting Peking with Shanghai, and by submarine cable with Japan, was finished, after much local opposition, early in the year 1882. Since 1858 Shanghai has been the seat of the "North China branch of the Royal Asiatic Society."

Five miles south-west of Shanghai lies *Sukiahwei*, the approach to which is marked by the lofty pagoda of Long-hua. Here is the Jesuit College, founded in the seventeenth century, to which is now attached a meteorological observatory. Amongst the other large places in the thickly peopled lacustrine peninsula between the Yang-tze estuary and the Gulf of Hangchew are *Huchew*, noted for its crapes and foulards, and *Nantsin*, a great depôt for the traffic in silk cocoons.

In the fertile region of South Kiangsu the chief industrial centre still is the famous city of *Suchew*, Marco Polo's "great and noble Suju." Doubtless the place has no longer "a circuit of 60 miles," or "six thousand stone bridges, high enough to allow the galleys to pass under," nor are its inhabitants numerous enough "to conquer the world." Nevertheless this Venice of China has already recovered from the ruin wrought here by the Taïping rebels, and its citizens, as of old, are still noted for their intelligence and good taste. "Whatever is beautiful comes from Suchew—paintings, carvings, tom-toms, silks, and women," says a local proverb; and another adds, "To be happy, you must be born at Suchew and live at Hangchew." The "Great Lake" (Ta-hu), stretching west of Suchew, and formerly traversed by a branch of the Yang-tze, presents the aspect of an inland sea, the permanent home of a numerous fishing community.

Hangchew-fu, at the west end of the extensive bay of like name, commands the entrance of an old branch of the Yang-tze, forming a southern prolongation of the Grand Canal. Lying in a fertile district and pleasant climate, it was formerly capital of the southern empire, and long held out against the conquering Mongol hordes. Since then it retained for centuries the title of *Kingtze*, and Marco Polo speaks of "Quinsay," as he calls it, in terms of admiration inspired by no other city visited by him. Nothing astonished him more than this "most noble city without fail the noblest and best that be in the world." But the details given by him were received with laughter in Europe. For he speaks of a circumference of 100 miles, 1,600,000 houses, 3,000 baths, 12,000 stone bridges high enough for fleets to pass under, and each guarded by a company of 10 men. The twelve working corporations are each stated to have had 12,000 houses for their industries, and other travellers speak in similar terms of Quinsay. Oderico of Pordenone calls it "the largest city in the world," and Ibn Batuta tells us that it takes three days to traverse it from end to end. Even in the seventeenth century, long after it had lost the rank of capital, Martinus Martini gives it a circuit of 100 Italian miles, and even more, including the vast suburbs. You may walk, he adds, in a straight line for 50 li through the place without seeing anything but houses closely huddled together.

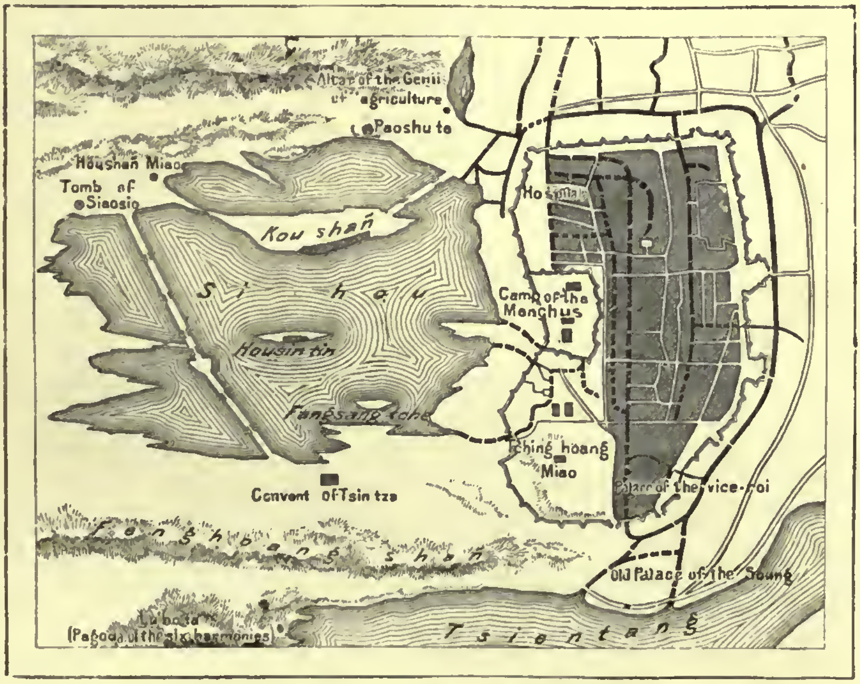
Hangchew has still a circumference of 12 miles, beyond which the ground is strewn in every direction with the ruins of temples and palaces. The great lake (Si-hu), which mediæval writers speak of as enclosed within the city, now lies beyond the ramparts. The delightful scenery of this lake, combined with the genial character of the people, has earned for Hangchew the title of the "Chinese Paradise." "Heaven is above; Suchew and Hangchew are below," says an oft-

TOWER OF LONG-HUA, SHANGHAI.

quoted proverb. The chief local industry is silk-weaving, which employs 60,000 hands in the city and 100,000 in *Huchew*, *Kiahing*, and the neighbouring towns. But the whole district has suffered much from the Taïpings, the population of Hangchew alone having been reduced, according to some writers, from 2,000,000 to less than 500,000 since the middle of the century. Here the Mohammedans are more numerous than in any other city on the coast.

Shaohing, on the south side of the bay, is the commercial and industrial centre of one of the richest and most densely peopled lowland regions in the empire. The hydraulic works here constructed to reclaim, protect, and drain the land are elsewhere altogether unrivalled. Amongst them is the longest viaduct in the

Fig. 109.—Hangchew and the Si-hu.



Canals and Bridges.

world, being 86 miles long, and consisting of about 40,000 rectangular arches supporting a roadway 6 feet broad, protected by a graded parapet. Mount Taying, lying between the cities of Ningpo and Yuyao, contains probably the largest quarries in China. They have supplied the material for the construction of the viaduct, and blocks here cut into columns and statues are forwarded as far as Siam.

The viaduct, which terminates eastwards in the red sandstone fortress defending the city of *Tsinhai* at the mouth of the Yung-kiang, or river of Ningpo, dates probably from a period when the whole country was a vast saline marsh. Although the draining of the soil has rendered it no longer necessary, it has been built with such solidity that it still continues to be used as a highway and towing-path for the neighbouring canal. An extremely fertile tract has also been reclaimed by an

enormous embankment skirting the shore, erected at an unknown period. It is faced seawards by dressed stone slabs bound together with iron cramps, and stretches from the Hangchew estuary to the Ningpo River. But Shaohing, capital of this unhealthy region, is a decayed place, although still distinguished by the culture of its inhabitants. Some two thousand years ago it was the capital of a state which comprised all the south-eastern lands from Kiangsu to Canton. Outside the wall is still shown a tomb, said to be that of the Emperor Yu. Here

Fig. 110.—Ningpo and Tsinhai.
Scale 1 : 220,000.

is prepared the exquisite perfumed liqueur known as "Shaohing wine," compared by travellers to Sauterne. It is extracted from a species of rice.

A walled city on the north side of Chekiang Bay still bears the name of *Kampu*, although the true Kampu (Ganfu, Gampu) spoken of by Marco Polo is supposed to lie submerged in the waters of the bay. Here the sea has encroached considerably on the coast, and nowhere else does the *eagre*, or *bore*, cause such disasters. From a distance it seems like a white cable stretched across the bay, but it advances with a velocity of over 30 feet per second, constantly increasing in size, and producing a din like loud peals of thunder. Its daily attacks require the embankments to be kept in constant repair, and during the reign of Kien-lung (1736—96) the hydraulic works along Hangchew Bay cost over £2,000,000. All the culti-

vated lands on the coast and neighbouring islands are protected by dykes, which give to the district a geometrical aspect, and the sweet waters are retained by sluices, which serve also to keep out the sea at high tide. Most of the coast towns are intersected by numerous canals, whence the title of "Chinese Venice" commonly given to them.

The Tsientang basin, some 16,000 square miles in extent, suffered almost more than any other region from the ravages of the Taïpings. Scarcely more than one-thirtieth of the inhabitants survived the massacres and ensuing famine. Yet the country soon recovered from these disasters, and its export trade in silks, teas,

Fig. 111.—Grand Chusan and Putu.
Scale 1 : 500,000.

0 to 80 Feet. 80 Feet and upwards.
12 Miles.

fruits, hams, has already revived. Of its twenty-nine towns, *Lanki* (Nanchi, or Lanchi), although a simple *hien*, is the chief commercial centre. All are accessible by boats during the floods, but large vessels are obliged to stop at *Chapu*, below Hangchew. But by far the most important place strategically is *Ningpo*, which stands at the junction of two navigable streams and of numerous canals radiating thence to all the cities of Chekiang and Kiangsi. Ningpo also enjoys the advantages of good anchorage, abundant supplies, and great facilities for defence. Hence the district has become famous in the military records of the empire. Within 5 miles of the city the Tatars were routed by the Chinese peasantry in 1130; in

1554 the place was seized and occupied by Japanese pirates; and it was again captured in 1841 by the British forces, who made it the centre of their operations against Nanking during the "opium war." The Portuguese also had a settlement near Tsinhai, which was entirely destroyed by the Chinese in 1542, when eight hundred Europeans were massacred and twenty-five vessels sunk.

Of late years a number of missionaries have been settled at Ningpo, which is favoured by a fertile soil, a delightful climate, and picturesque surroundings. The blue mountains bounding the horizon towards the south-west are amongst the best wooded in China; and one of their gorges, the so-called "Snowy Valley," is famous throughout the East for its white rocky walls, forests, and cascades. Below these uplands stretch the rich plains renowned in the history of Chinese agriculture, where the Emperor Shun is traditionally supposed to have guided the handle of a plough drawn by an elephant over forty centuries ago. In the district are also shown his well and stone bed. Ningpo is a learned city, and one of its private libraries, with upwards of fifty thousand volumes, is the common property of a community of blood relations, every member of which holds a key. The local industry is very active, and the inlaid or lacquered cabinet-work, carpets, and nettle mats manufactured in Ningpo are exported even to Japan. Its foreign trade, formerly amounting to £2,000,000 yearly, was reduced in 1880 to little over £23,000, most of the shipping having been removed to Shanghai. Ningpo, however, still remains the chief mart in China for fish.

The surrounding district is occupied by several large towns, such as *Yuyao* and *Tsekye* (Zkiyu). *Tinghai*, on the south side of Great Chusan (Chew-shan, or "Ship Mountain"), is the capital of the Chusan Archipelago, which has a population of fully one million. Although of difficult access, the port of Tinghai is deep and well sheltered, and a large export trade is here carried on in such local produce as cordage, mats, fans, cloaks of palm fibre, and the so-called "Chinese orange," largely used by the Canton preservers.

The famous monasteries of *Puto* (Putu), on a small island in the archipelago, consecrated to Kwanyin, goddess of mercy and protectress of mariners, are much frequented by pious Buddhist pilgrims. These monasteries, about 100 in number, with about 2,000 priests, serve in summer as hotels for visitors, who resort to this place for sea-bathing. The great industry of the archipelago is fishing, these islands abounding in fish of every kind. Being mostly descended from pirates, the natives have preserved a very independent spirit. So recently as 1878 they successfully resisted the Imperial forces, and thus got rid of the Government imposts.

EASTERN SLOPES OF THE NAN-SHAN.

(South Chekiang and Fokien.)

This is one of the most clearly defined regions in China, the main ridge of its mountain system sharply separating Fokien from the Yang-tze and Tsientang basins. The Nan-shan ranges, all running south-west and north-east, indicate

FEMALE TYPES AND COSTUMES—PROVINCE OF FOKIEN.

the natural direction of the historic route followed by trade and migration between the Yang-tze estuary and the Canton River. This route was necessarily deflected inland to the west of Fokien and the water-parting. Between Hangchew-fu and Canton it followed the valley of the navigable Tsientang as far as a pass leading into Kiangsi, whence it trended southwards over the Mei-ling Pass.

East of this formerly much-frequented commercial highway the space between the water-parting and the coast was too narrow and rugged to allow the streams to merge in a common river basin. Hence they flow seawards in several independent channels, some of which are separated from each other by difficult intervening ridges. Thus South Chekiang is naturally divided into two districts, watered by the Taichew and Wenchew Rivers respectively. Fokien also is distributed into a number of distinct regions corresponding with the basins of the Min and of the streams flowing to the Amoy and Swatow estuaries. The axes of the uplands run parallel with the coast and the Nan-shan system, so that the affluents of the main streams traverse intermediate valleys in the same direction; that is, either south-west and north-east, or north-east and south-west. Hence here also the natural routes, avoiding the hilly and much-indented seaboard, take advantage of the depressions in the upland valleys between the parallel main ranges. Intercourse between the inhabitants of Fokien has thus been maintained either by sea or by the uplands of the interior. But although thus cut off from the great imperial highways, this region, thanks to the fertility of its valleys and its healthy climate, has become one of the richest and most densely peopled in China. Its secluded position has also largely protected it from devastating wars, so that agriculture and industry have been almost uninterruptedly developed for thousands of years.

The Fokien seaboard, cut up into countless headlands and rocky peninsulas, and fringed by myriads of islets and reefs, presents a somewhat sombre aspect, notwithstanding the infinite variety of its coast-line. Most of the granite hills are entirely destitute of vegetation beyond a few clumps of dwarfed conifers. In some places the shore is skirted by white sandy dunes, and although the flora is mainly tropical, it is too scanty to form a marked feature in the landscape. But farther inland, and beyond the marine winds, the country assumes a pleasant aspect, with a rich spontaneous vegetation clothing even the slopes, which are too steep to be cut into terraces and brought under cultivation. Below Fuchew the banks of the Min unfold a succession of enchanting prospects, in which a pleasant contrast is offered by the tropical foliage of the lowlands and the temperate plants of the higher grounds.

Inhabitants of Fokien.

Their relative isolation in their secluded valleys has enabled the natives of Fokien to maintain their special physical characteristics, so that in some respects they contrast with all the other inhabitants of the empire. Here are current at least five distinct dialects, of which the most marked seems to be that of Amoy, which has been carefully studied by Medhurst and Douglas. Besides possessing several tones unknown to the Mandarin variety, this dialect employs numerous

dissyllabic compounds, and even varies the inflections of common words by means of nasal or contracted endings. These Fokien dialects, which encroach upon the northern and eastern districts of Kwangtung, give a certain national unity to the populations speaking them. They have been disseminated by migration over the Philippines, Malaysia, Indo-China, and even parts of America. The Amoy and Swatow varieties prevail in Bangkok, Lima, and Sacramento.

In Fokien, as well as in Kwangtung and the Chusan Archipelago, there still exist certain despised classes which are regarded as the survivors of an aboriginal element. They live apart fron the rest of the population, and in many districts, especially Fuchew, they can neither own property nor even reside on the mainland. Being compelled to live afloat, they move about from port to port, exposed to wind, rain, and storm, or taking shelter in the creeks and inlets along the coast. These amphibious communities have even their floating temples and Taoist priests, who celebrate their marriages and perform the ceremonies in honour of the "Nine Kings." But neither Buddhism nor the rites of Confucius have ever penetrated amongst them. The outcasts are condemned to ignorance, because their children are not admissible to the public examinations; while three generations must pass before their descendants, tolerated as barbers or palanquin-bearers in the towns, can acquire full citizenship. Many of the *compradores*, or agents of the European traders, belong to this class; but however wealthy they may grow, they are never permitted to become landed proprietors. Custom has thus proved stronger than the beneficent edicts of the Emperor Yungching, published in their favour in the year 1730. In the highlands stretching west of Fuchew some aboriginal tribes still bear the name of Min; that is, of the chief river and of the old kingdom which has become the province of Fokien.

Topography.

South of Ningpo the numerous inlets along the coast offer safe harbours of refuge to the junks navigating these waters. *Shipu* is the busiest port on the South Chekiang seaboard, although here the treaty port is *Wenchew*, at the head of an estuary formed by a navigable river. Wenchew was formerly a place of much importance, as attested by the ruins of its palaces, sculptured gateways, and triumphal arches. The "Feng-shui," say the natives, is no longer favourable to the local prosperity; but the true cause of its decadence are the people themselves, who have become probably the most inveterate opium smokers in all China. Even the inmates of the numerous convents lead dissolute lives, and to put an end to the scandals the civic governor recently caused the nuns to be seized and publicly sold "by weight." The average price was about £3 per head.* All the trade is in native hands, and in 1879 not a single British vessel entered the port, although the imported goods are almost entirely of English manufacture.

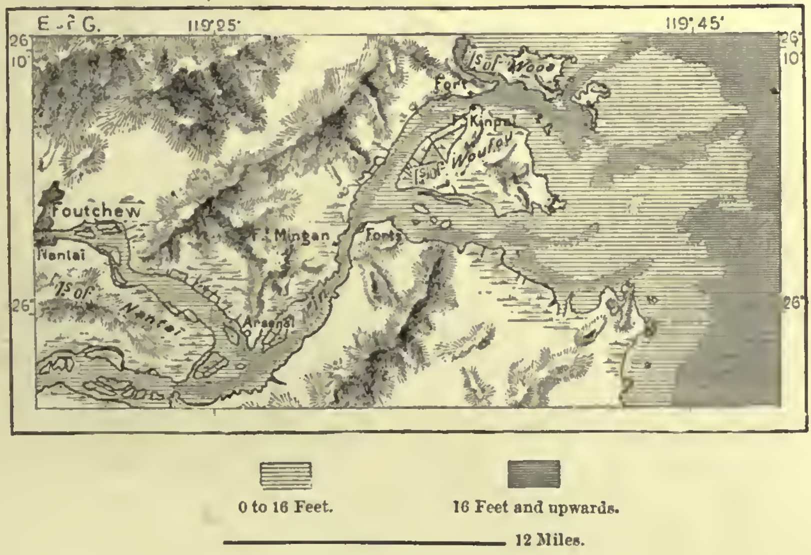
Of the numerous inlets following southwards the most spacious is that giving access to the city of *Funing-fu*. It forms a broad land-locked basin dotted over with

* W. Everard's Consular Report for 1879.

BUDDHIST MONASTERY AT YUEN-FU ON THE MIN, SOUTH OF FUCHU-FU.

islets, and completely sheltered from all winds. But the chief seaport on the south-east coast between Shanghai and Canton is *Fuchew-fu,* capital of Fokien, and one of the great cities of the empire. From its delightful surroundings it seems to take its name, which is usually explained to mean "Happy Land," although by the natives more commonly called Hokchew, or else Yung-cheng; that is, "Banana Castle." Fuchew lies, not on the coast, but some 33 miles above the mouth of the Min, near its junction with another large stream from the south-west. After crossing the bar, which has 13 feet at low water, the shipping passes through a deep channel 400 yards wide, flowing between steep granite walls and defended by the Kin-pai forts. Higher up succeeds the Mingan passage, also commanded by forts on both sides, above which the Min expands into a spacious sheet of water 20 feet deep at the arsenal where the shipping stops. This arsenal, constructed in 1869

Fig. 112.—Mouth of the Min.
Scale 1 : 550,000.



by the French engineers Giquel and D'Aiguebelle, is the most important naval establishment in the empire. It includes a school of navigation, extensive workshops and building yards, from which fifteen men-of-war were launched within five years of its foundation.

The walled city of Fuchew-fu stands 2 miles from the north bank of the Min, but the intermediate space is occupied by a large suburb, where are concentrated all the industries and trade of the place. Within the walls is the "Tatar town," where reside ten thousand descendants of the Manchu conquerors. On the opposite side of the river lies the populous suburb of *Nantai,* and the small island of Chungchew, in the middle of the river, is also covered with houses. This island is connected with both banks by two granite bridges, one of which, the "Bridge of Ten Thousand Years" (Wenchew-kiao), is 500 yards long, and is said to date from the eleventh century. Unfortunately some of the huge granite blocks of the

roadway have fallen into the stream, where they have formed rapids, barring the further progress of junks. In 1876 this bridge, although completely submerged by the inundations of the Min, successfully resisted the violence of the current.

The European quarter lies in the Nantai suburb, where most of the houses are scattered amid old Chinese tombs on the slope of a hill commanding a prospect of the city. The chief staple of export has for years been tea, forwarded almost exclusively to England and Australia. Recently, however, the Russian traders settled at Fuchew have begun to prepare brick tea, which is shipped for Tientsin and Siberia. The local traffic consists of lumber, bamboos, furniture, paper, rice, fruits, exchanged for European goods from Hongkong, Canton, and Shanghai.

Fig. 113.—Fuchew-fu.
Scale 1 : 55,000.

2,200 Yards.

Six miles above Fuchew the Min is crossed by another bridge like the Wenchew-kiao. But all river craft are arrested at *Shui-kow*, below the great city of *Yungping*, which stands at the converging point of the chief routes of the Min basin. The botanist Fortune ascended the main stream to visit the districts where the best black teas of Fokien are grown. But various obstacles compelled him to retrace his steps, returning by a pass over the "Bohea" Mountains, which attain a mean elevation of 6,000 or 7,000 feet, with peaks rising in the eastern ridges to 10,000 feet. The great tea mart in this upper region of the Min is *Tsongan*, not far from the isolated Wi-shan, one of the most venerated mountains in China, consisting of conglomerate sandstone, granite, and quartz, and rising 1,000 feet above the plain. Here is also one of the best tea-growing tracts, extensively cultivated by the Buddhist monks of the "999 temples" scattered over the surrounding hills.

Before Fuchew the more southerly city of *Tswanchew* was the capital of

Fokien, and is still the residence of the provincial military governor. Most commentators identify this place, vulgarly called *Tsätung*, with Marco Polo's Zayton (Zaïtun), which Ibn Batuta describes as "the largest port in the world." In mediæval times it was much frequented by the Arab traders, and even the Armenians and Genoese had settlements here. Marignoli saw "three beautiful churches" in this city "of incredible extent," where an Italian bishop resided from 1318 to 1322. Its harbour was crowded with vessels to such an extent that,

Fig. 114.—Shui-kow, on the Upper Min, Fokien.

on the occasion of a war with Japan, the local merchants boasted that they could throw a bridge of boats from their port to the archipelago of the "Rising Sun." Zayton supplied the Western traders with sugar, velvets, and silks, and Ibn Batuta expressly declares that the word *Zaïtuniah*, or "satin," is derived from this place, an etymology which Colonel Yule seems half inclined to accept.

But the roadstead of Tswanchew was gradually choked with sand, and its vast trade transferred farther south to the great Bay of *Amoy*, which seems to have also

been known by the name of Zaïtun, as commercially dependent on Tswanchew, in the district of which it is situated. At present the little port of *Nganhai* serves as the entrepôt of traffic between the old port of Zaïtun and its successor.

Amoy (Hiamen, or Hiamun), now open to the trade of the West, lies on an island apparently at one time connected with the mainland, in one of the very

Fig. 115.—Amoy.

Scale 1 : 180,000.

finest harbours in the world. It was already the chief port in the province of Fokien when the Portuguese arrived here in the beginning of the sixteenth century. It remained accessible to European shipping till the year 1730, after which it was closed till reopened by the guns of the English in 1840. The colony of the "red-haired devils," which numbered three hundred souls in 1880, has been established in the little island of Kulang-su, over half a mile from Amoy, and

round about this settlement quite a large native city has sprung up. Here the naturalist Swinhoe founded a learned society in 1857, which has done much good work in various branches of natural history.

The trade of Amoy, about as extensive as that of Fuchew, consists mainly in opium taken in exchange for tea and sugar. Here also emigrants are shipped, and a large passenger traffic has been developed between this place and Singapore. Amoy, which is one of the most enterprising cities in China, is now provided with repairing docks large enough to accommodate steamers of 2,000 tons burden. The chief island in the harbour consists partly of a barren mass of granite, but the rich district on the mainland round about the large cities of *Changchew* and *Tungan* has been converted into a vast garden.

BASIN OF THE SI-KIANG.

(Provinces of Kwangsi and Kwangtung.)

Within the torrid zone is comprised about one-half of this region, which in its climate, products, and inhabitants presents the sharpest contrasts to the rest of the empire. During the historic period the Si-kiang basin has been more than once politically independent of the northern rulers, and here the formidable Taïping revolt had its origin about the middle of the present century. The province of Kwangtung, comprising about one-twentieth of all the inhabitants of China, still exercises a political influence out of proportion to its population, and its capital, said to be the largest in the empire, is regarded as in many respects acting as a counterpoise to Peking, at the opposite extremity of the state. While the "Northern Residence" watches over the Mongolian plateaux, the cradle of so many invasions, Canton, or "the Eastern City," almost half Indian in its climate, maintains the relations of the Chinese world with the peninsulas and islands watered by the Indian Ocean.

North of the Si-kiang valley the various mountain ranges, known by a thousand local names, and to which Richthofen gives the collective name of Nan-shan, develop, as in the Yang-tze basin, a series of parallel ridges running south-west and north-east, with large intervening breaks. Conspicuous amongst these is the Ping-yi-shan, said to rise above the snow-line. The northern chains are believed to have a far greater mean elevation than those in South Kwangtung, which skirt the course of the Yu-kiang, stretching thence parallel with the gulf far into Tonking. Beyond the lofty and massive Loyang they are pierced by the Si-kiang, the gorges here formed by this river constituting the natural frontier between the two provinces of Kwangsi and Kwangtung. Other ridges, running mostly in the same north-easterly direction, occupy the eastern region of Kwang-tung, whence they are continued into Fokien. One of these begins at the very gates of Canton, here forming the picturesque group of the Peiyun-shan (Pak-wan-shan), or "White Cloud Mountains," whose slopes are covered with countless tombs. Farther on the Lofu Hills, 4,000 to 5,000 feet high, are clothed with a forest vegetation, in the shade of which the Buddhist monks have built their monasteries.

Still farther east these chains are connected by an unsurveyed highland region with the parallel Fokien ranges. According to the reports of the missionaries some of these crests, especially between the Han-kiang and Tun-kiang river basins, are lofty enough to be covered with snow in winter.

South of Fokien, the copious Han-kiang, collecting the drainage of West Kwangtung, flows from the Kiangsi frontier due south through the breaks in the parallel ranges. But its chief affluent, the Mei-kiang, follows one of the intermediate north-easterly depressions, thus offering a transverse route from Fokien to the Si-kiang basin.

The Si-kiang River System.

The Si-kiang, or Seï-kong, as the Cantonese pronounce the word, which means "West River," contains a large volume of water, due mainly to the summer monsoons. These trade winds send to the southern slopes of the Nan-shan an abundant rainfall, which in the province of Kwangtung is estimated for the whole year at over 20 inches. The Si-kiang, known also as the Pué-kiang, or "River of Pué"—that is, of the two southern provinces—receives its farthest head-streams from Yunnan and the Kweichew uplands occupied by the Miaotze tribes. The Hung-shui, its main branch, flows under various names before receiving from the Cantonese the designation by which its lower course is known. This want of a more precise nomenclature has enabled every traveller to regard the head-stream visited by himself as the main branch. Thus Huc and Gabet, who embarked on a stream rising at the foot of the Mei-ling in the north of the province of Canton, and Moss, who ascended the Yu-kiang, which rises in Tonking, all supposed they had explored the chief branch of the Si-kiang. Below the confluence of these two tributaries the main stream is joined by the Kwei-kiang, after which it penetrates through a series of defiles into the province of Kwangtung. At some points it is obstructed by shoals, and at low water there is little more than 6 or 7 feet in the channel. But during the summer rains it rises from 25 to 30 feet and upwards, while the tides are felt in Kwangsi, 180 miles from its mouth. In some parts of the channel the plummet reveals depths of from 150 to 170 feet.

After emerging from its last narrow gorge, where it contracts to 630 feet between its rocky walls nearly 1,200 feet high, the Si-kiang is joined by the Pe-kiang, or "River of the North," at the head of the delta. From its source to this point it develops a course of about 800 miles, throughout which it presents the only commercial highway from Canton to the three provinces of Kwangsi, Kweichew, and Yunnan. Through the same channel a portion of the traffic is carried on with the regions of Indo-China, watered by the Red River and the Mekhong. Yet the Pe-kiang is still more important than the main stream as a trade route, for it forms a section of the great highway connecting Canton with the Yang-tze basin, where the only interruption is the Mei-ling Pass. This is the route followed by most European travellers who have visited the southern regions of the empire. The Pe-kiang was explored in 1693 by the missionary Bouvet, and

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in 1722 Gaubil surveyed the basin astronomically. Of all the historic routes of the empire this is the most important, as but for it the whole of the southern region would remain detached from the "Middle Kingdom." Since the development of steam navigation on the coast the traffic on the Pe-kiang has been much reduced, although the overland intercourse between the Si-kiang and Yang-tze basins is still very considerable.

The Canton Delta.

Below the confluence of the Si-kiang and "River of the North" the united stream is again divided almost at right angles. The main channel flows southwards to the coast, while a second branch trends eastwards to the network of countless branches and backwaters everywhere intersecting the alluvial plains of Canton. This labyrinth of waters is joined from the east by another great stream, the Tung-kiang, or "River of the East," whose farthest sources rise in the north-east on the frontiers of Kiangsi and Fokien. This is also an important highway, especially for the transport of sugar, rice, and other agricultural produce.

Thanks to the tides, nearly all the channels of the delta are navigable, and so numerous are these watercourses that in a region over 3,000 square miles in extent land routes are scarcely anywhere required. Thus the whole population has almost become amphibious, living indifferently on land and afloat. Large water fairs have even been held in the delta, when reaches, at other times almost deserted, have been temporarily converted into extensive floating cities. Other industries beside fishing are pursued by the inhabitants, and many even of the agricultural classes reside permanently in boats moored to the shore. This region has thus naturally become the great centre of commerce in the empire. But here also during times of disorder piracy has found a convenient home amid the intricate maze of channels ramifying over the delta. Even the European war vessels found it difficult to rid this region from the daring corsairs by whom it was infested.

The city of Canton stands about midway between the two heads of the delta which is formed on the west by the united Si-kiang and Pe-kiang, on the east by the branches of the Tung-kiang. Thus from this point junks reach the two estuaries by the shortest channels. Of these the broadest and deepest, ramifying eastwards, is known as the "River of Canton," or the "Pearl River" (Chu-kiang), a name supposed to be derived from that of Fort Hai-chu, or "Pearl of the Sea," better known as the "Dutch Folly." * But even by this channel large vessels are unable to reach Canton, junks of deep draught and ordinary steamers stopping 8 miles lower down at Hoang-pu (Whampoa), while large men-of-war are arrested much farther down by a bar which has only 13 feet at ebb tide. The limit of the Pearl River and of the estuary is clearly marked by the rocky cliffs confining the channel on both sides, and the fortified headlands of which have been compared by the Chinese to the jaws of a tiger. Hence the expression *Humen*, translated by the Europeans into "Bocca Tigris," or the "Bogue." The shoals and even the banks of the stream are subject to constant shiftings, the land generally encroaching on

* That is, the "Dutch Fort," from *Fo li*, the *Pigeon English* pronunciation of the word *fort*.

the channel, owing to a line of hills which run south-west and north-east across the alluvial soil, and which serve to retain the sedimentary matter brought down by the stream and washed back by the tides. The northernmost of these ridges consists of large islands, above some of which rise elevated crests, such as the two peaks of the island of Wungkum at the entry of the Canton estuary, better known by its Portuguese name of Montanha. The Ladrones, or "Robber" Islands, like Hong Kong itself, form portions of an intermediate chain, while still farther seawards stretches the long archipelago of the Laïping and Lema groups.

Climate of South China.

In the Si-kiang basin the torrid and temperate zones are intermingled. With the alternation of the monsoons, Canton oscillates between the two, so that its climate is far less equable than that of Calcutta, Honolulu, Havana, and other places situated under the same parallel.* During the moist summer monsoon the southern provinces are as hot as Indian cities equally distant from the equator. But the temperature rapidly falls in winter, when the dry north-east polar winds sweep down between the parallel mountain ranges, running mainly north-east and south-west. Rain seldom falls in January, when the nights are clear, and even frosty. At the same time, the regular alternation of moist summer and dry winter winds is occasionally disturbed by atmospheric currents, deflected in various directions by the relief and contour of the seaboard. Thus the south-west monsoon becomes at Canton a south-easterly gale, and the lofty Mount Lantao is daily exposed to fierce storms for months together.

These climatic disturbances are also reflected in the flora of the southern provinces. Here the plains are bare in winter, when nature presents the same bleak aspect as in more northern regions. But all is changed with the return of the hot moist monsoons, under whose influence the tropical vegetation is revealed in all its splendour. Now the palm and camellia flourish by the side of the oak, chestnut, and sombre pine, while the banana, mango, litchi (*Nephelium litchi*), orange, and citrons of divers species are intermingled with the fruit trees of the temperate zone. Many leafy shrubs, confined in Europe to the conservatory, here thrive in the open air, decking the landscape with their brilliant blossom, charging the atmosphere with a balmy perfume. The small island of Hong Kong contains, so to say, an epitome of this varied and beautiful southern flora.

In this favoured region the unreclaimed tracts are far too limited to afford shelter for many wild animals of large size. Few mammals are met besides the wild goat and fox on the coast and islands, and in the interior the rhinoceros and tiger. Smaller animals, as well as birds, insects, and butterflies, are numerous, and mostly of species allied to those of India.

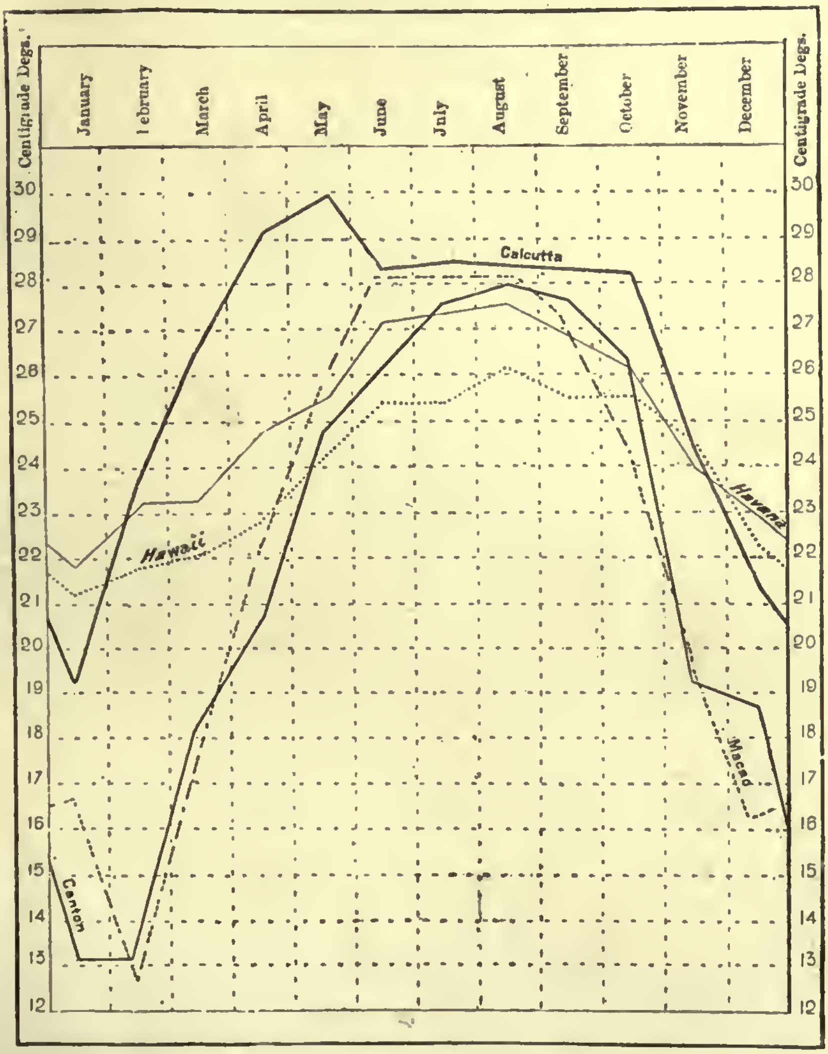
* Comparative temperature of various tropical cities:—

	August.	February.	Mean.
Canton	81° F.	58° F.	70° F.
Calcutta	83	74	79
Honolulu	77	70	75
Havana	80	72	77

Inhabitants of South China.

Southern and especially Malay elements seem to have become intermingled with the populations of South China, although no trace of their presence can now be detected in the customs or speech of the natives of Kwangtung. Here the purely Chinese dialect is even of a more archaic character than the present

Fig. 116.—Comparative Temperature of Canton and other Towns.

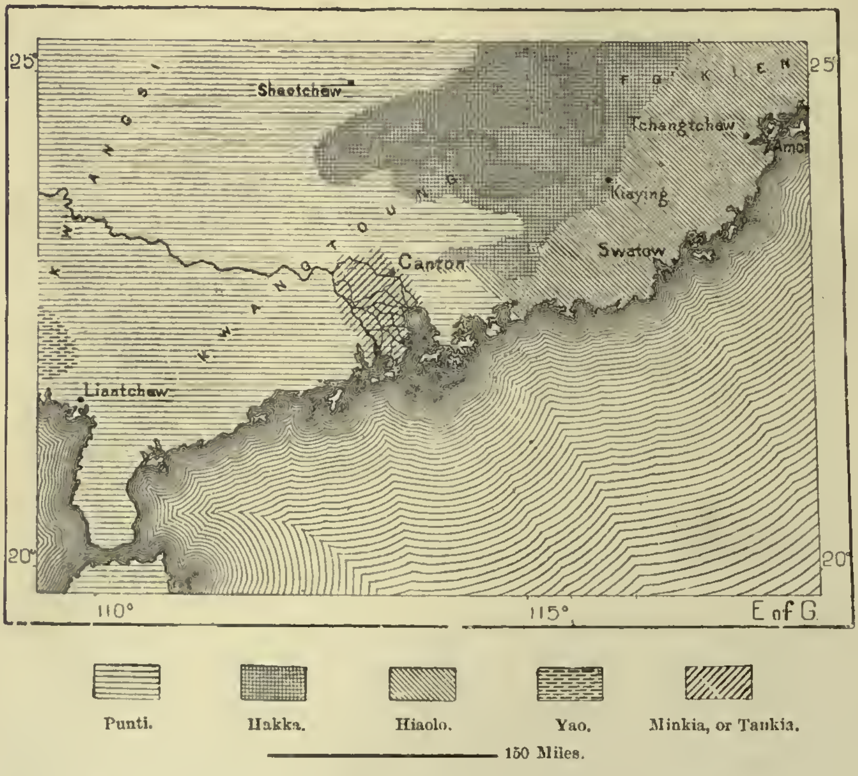


Mandarin variety, while all local geographical names belong to the same stock as those of other parts of China. It is now ascertained that the number of original terms unrepresented by particular signs in the literary standard is far more limited than was formerly supposed. But in the interior there still survive certain aboriginal communities which have not yet become amalgamated with the Chinese

proper, and which by them are regarded as barbarians of alien blood. Thus some Miaotze tribes are found in the north-west of Kwangtung, about the sources of the Lienchu, a western affluent of the Pe-kiang. Others occupy parts of Kwangsi, where they form autonomous communities, settled on lands conceded to them by the Emperor Yungching in 1730. In the seventeenth century other Miaotze tribes seem to have peopled the uplands about the head-waters of the Han-kiang, but all this region on the Fokien frontier is now settled by Chinese colonists. The Yao (Yiu), a large group said to be of Burmese origin, occupy a highland district in the south-west of the province, near the Annam frontier. The Yao of distinct

Fig. 117.—Inhabitants of Kwangtung.

Scale 1 : 8,500,000.



speech appear to number altogether less than 30,000, yet they have hitherto succeeded, more by policy than open force, in maintaining their independence. The custom of the *vendetta*, or blood vengeance, pursued from generation to generation, common amongst the Cherkesses, Albanians, Corsicans, and some other Western peoples, but extremely rare in the far East, still survives amongst the Yao tribes.

Although belonging, if not to one original stock, at least to one nation fused together by a common language and historic development, the natives of Canton and surrounding regions are divided into three distinct groups—the Hoklo, Punti, and Hakka.

The Hoklo (Hiolo, Hiaolo) dwell chiefly on the seaboard and about the river

estuaries. The Chinese sign for their name means "Ancient in Study," apparently implying a civilisation anterior to that of the other inhabitants of the land. Yet amongst the Hoklo persons devoted to the learned professions are at present less numerous than elsewhere. They are, however, also known by the name of Fo-lo, or "Ancient in Prosperity," and these terms *Hok* and *Fo*—that is, "Study" and "Prosperity"—are components in the name of the province of *Hok-kien* or *Fo-kien*. Hence the true meaning of Hoklo is probably "People of Fokien." According to the Chinese tradition, they migrated in the fourteenth century into the adjacent province of Kwangtung, and it is noteworthy that here the floating population about the creeks and inlets, who have the greatest affinity with the Hoklo, are also supposed to have come originally from Fokien. Their peculiar manner of life has made them a special caste, no less despised than that of the Fuchew waters, and also stigmatized by abusive appellatives. In Canton, as in Fuchew, the members of this caste would appear not to be admitted ashore, so that they live from generation to generation grouped in floating villages along the river banks. In the Pearl River the moorings become hereditary property, and when a junk falls to pieces, it is immediately replaced by another.

The Punti—that is, "Roots of the Soil"—are the most numerous element in the southern provinces. Although priding themselves in the title of autochthonous, they probably represent a fusion of northern immigrants with the aborigines, and now regard themselves as the natural masters of the land. Even in Yunnan they reject the name of Chinese, and claim to be considered as a distinct race. Representing a sort of southern aristocracy, they affect to despise not only the plebeian Hakka and Hoklo, but even the people of the north, whom they certainly surpass in elegance and refinement. Their beautiful dialect, which is the current speech of Canton, takes the title of *pe-hoa*—that is, "white language"—in the sense of the pre-eminent speech, and in it have been composed many literary works.

The Punti have a numerical majority in the Canton district, where, however, they are now threatened by the proletariate Hakka element, descended from colonists originally settled in the north-east of Kwangtung. The Hakka dialect differs greatly from the Punti and Fokien, and appears to be a variety of the "true language;" that is, of the Nanking form of speech, although now affected by numerous Punti elements. The Hakka are a hardy, laborious race of agriculturists, who supply a large proportion of the coolies now employed in Formosa, Java, Saigon, Bangkok, the Sandwich Islands, Peru, and California. Their dialect also prevails in Singapore, and amongst the Chinese villages in Borneo. Thus, although despised by the haughty Punti, to their industrious enterprise is largely due the share at present taken by the Chinese nation in the common work of humanity

Topography.

East of Canton, and in that part of Kwangtung which belongs ethnically to Fokien, the chief trading-place is *Shashantow*, which the English call *Swatow*. A mere fishing hamlet in 1840, thanks to its happy situation on a navigable river

estuary in a rich alluvial plain, it soon rose to prosperity after being thrown open to the trade of the West. Even before this time some English merchants had settled on "Double Island," at the mouth of the Han, which they converted into an entrepôt for opium and all kinds of merchandise. Here they were encircled by a cordon of pirates and smugglers, forming a sort of republic, with its head-quarters on the island of Namao (Nangao). Having also taken part in the detested coolie traffic, the traders of Double Island were very badly received at Swatow when this place was made a treaty port in 1858. Hence most of the counting-houses belong still to merchants from Canton or Singapore, who have formed themselves into a sort of trade guild, which regulates current prices even for other ports along the coast. Swatow exports chiefly sugar, lacquer-ware, and other products of the local industries. At high water the harbour, lying 5 miles from the sea, is accessible to vessels drawing 20 feet. Swatow is one of the healthiest places on this seaboard, but it has suffered much from the typhoons, to which it is exposed.

Fig. 118.—Female Coiffure, Swatow.

In the Si-kiang basin the only routes being the rivers and portages, all the cities have been built on the banks of streams, and especially at points where confluents, rapids, and portages required depôts of merchandise to be established. Thus *Kwei-ling*, capital of Kwangsi, stands at the issue of a mountain gorge on the banks of a canal connecting the Yang-tze and Si-kiang basins through the Siang and Kwei-ling Rivers; but the latter is so obstructed by rapids as to be scarcely navigable except during the floods. Hence, notwithstanding its administrative rank, Kwei-ling itself is a place of no importance. The great city of Kwangsi is *Wuchew*, or *Ngchew*, lying below the confluence of the Si-kiang and Kwei-ling on the north side of the main stream. Here the salt and manufactured wares from Canton are taken in exchange for the copper ore, lumber, cabinet woods, rice, and other produce of Yunnan and Kwangsi. In 1859 the Anglo-French expedition, under MacClaverty and Aboville, ascended the Si-kiang as far as Wuchew.

Shuhing, or *Shaohing* (Chaoking, Shakoing), on the left bank of the Si-kiang below the last gorge above its delta, was long the residence of the Viceroy of Kwangsi and Kwangtung. But the administration of the two provinces was afterwards removed to Canton, with which it can no longer compare in extent or importance. Yet, although sacked by the Taïpings, it still does a large trade in tea,

porcelains, and marble slabs from the neighbouring hills. Beyond this point the traffic and population increase continually on both sides of the river, coming to a focus at the confluence of the Si-kiang and Pe-kiang, where stand the cities of *Sanshui* and *Sainan*, near the head of the delta. *Fachan* (Fu-shan), although ranking as a simple village, without walls or fortifications, is no less than 12 miles long, and is classed among the "Four Marts" of the Middle Kingdom. It forms the largest centre of population in the district connecting the Sanshui, or "Three Waters," with the Pearl River. Here the channel seems to have become much shallower than formerly, whence probably the decadence of Fachan, whose population has fallen from about one million in the seventeenth century to half that number. It may now be considered not so much a rival as a dependency of Canton, where silks, hardware, mats, paper, sails, and all sorts of wares are manufactured. Another dependency of Canton is *Shihlung* (*Shäklung*), at the head of the delta formed by the Tung-kiang, which is the great depôt for the sugar and other produce of the East destined for the capital. In the Pe-kiang valley there are also several large places, such as *Nanhiung*, at the foot of the Mei-ling, and *Shaochew*, a much-frequented riverain port.

Mention is made of *Canton* in the Chinese records as far back as the fourth century before the vulgar era, at which time it bore the name of Nanwu-cheng, or "Warlike City of the South," a title fully justified by its frequent revolts. In A.D. 250 it succeeded in expelling the Imperial forces, and maintained its independence for half a century. At the beginning of the tenth century it became the capital of a separate state, paying an annual tribute to the empire, but sixty years afterwards it was again conquered by the founder of the Sung dynasty. In 1648 it rose against the Manchus in the name of the Ming dynasty, and held out for over a year. Upwards of 700,000 Cantonese perished during the siege, and the city, given up to plunder, became a heap of ruins.

At present Kwangchew-fu, or Shencheng, as Canton is called in the local dialect, is one of the most thoroughly Chinese cities of the empire, although lying on its southern limits over against the great southern peninsulas and archipelagos. It probably exceeds all the other imperial cities in population, as it certainly does in the originality of its appearance and fidelity to the national types. It lacks the broad dusty streets and tent-shaped houses of Peking, recalling the neighbourhood of the Mongolian steppes. It presents no such imposing aspect as Shanghai or Hankow, with their new European quarters, houses, quays, and shipping; nor has it had to be rebuilt in recent times, like Hangchew-fu and so many other cities destroyed by the "long-haired" rebels. Canton is still what it was over four hundred years ago, when first visited by Europeans, altogether a unique city as approached through a floating quarter, where are anchored all kinds of craft, disposed in blocks like the houses ashore, with intervening water streets crowded with traffic. Although at this point nearly three-quarters of a mile broad, the river is completely covered by this city of boats, no less animated by its dealers, artisans, innkeepers, pleasure-seekers, than the city on terra firma.

Canton proper, lying on the north side of the Chu-kiang, is enclosed by a

rampart, and, as is usual in China, divided by another enclosure into two distinct cities. Within these spaces, with a joint area of several square miles, the population is crowded together in narrow, tortuous streets, lined by rickety houses, with their lacquered or gilded signboards still further shutting out the prospect. In many alleys mats are stretched from house to house, the finer shops are exposed fully to view, the motley throng is jostled by the rude bearers of palanquins. Beyond the walls vast suburbs stretch right and left along the river, while the south side is occupied by the city of Honan, on the island of like name. Canton is one of the most insalubrious places in China. Amongst its inhabitants there are no less than 8,000 blind and 5,000 lepers, while the general type of features seems exceptionally repulsive to the European eye. The English, by far the most numerous and wealthiest of all the European settlers, have converted their quarter on the island

Fig. 119.—Canton, Whampoa, and Honan Island.
Scale 1 : 200,000.

of Shamin into a sumptuous city, far more healthy than the native town, provided with promenades, shady avenues, and a racecourse. The site of this "Concession" has been well chosen, at the diverging point of the two deepest branches of the Pearl River.

For its industries Canton takes the foremost rank amongst Chinese cities. Its artisans are engaged in the most varied pursuits, such as silk-spinning, dyeing, paper, porcelain, and glass making, lacquer-work, ivory and wood carving, cabinet-work, metal casting, sugar refining, and in the production of the thousand knick-knacks known as Canton fancy goods. The embroiderer's art has been brought to great perfection, being elsewhere absolutely unrivalled in the disposition of the colours, its exquisite designs, and delicate execution. Canton is the great mart for the silks of the South, as Hangchew is for those of Central China.

Nearly all the trade of Canton is in the hands of native merchants, the Europeans of Shamin having sunk to the position of mere brokers. Before Lord Amherst's mission of 1815, English commerce was barely tolerated, and at that time there were no capitulations, as with Turkey, nor any treaties as amongst the different European states. But when intercourse was permitted with the West, Canton, already enjoying a monopoly of the foreign exchanges, soon acquired an extraordinary development. The opening of Shanghai and the other treaty ports doubtless reduced it to the second rank amongst the emporiums of the empire, but it seems to be gradually recovering the foremost position. Here was first developed the curious *lingua franca* known as "Pigeon (Business) English," some expressions from which have entered into the familiar speech of the English themselves. But the constant relations of Europeans with the natives seem to have produced a general lowering of the moral standard. A national proverb warns the aged from Sechuen and youth from Canton, implying how laborious life is in the western highlands, how corrupt in the great southern capital.

Whampoa (*Hoang-pu*), the outport of Canton on the Pearl River, is also a large place, stretching some 3 miles along the islands which enclose its harbour. Notwithstanding its proximity to European structures, Whampoa has preserved all its originality, and is still little more than a vast aggregate of wretched bamboo hovels overlooked by a lofty pagoda. Building yards, repairing docks, and extensive warehouses cover a large space; but a great portion of the traffic has fallen into the hands of smugglers, who infest the neighbouring creeks. Old towers rise at intervals along the shore, raised at an unknown date against enemies whose very name has been forgotten.

Hong Kong.

Since 1841 the neighbouring island of *Hong Kong* (Hiong-kong, or Hiang-kiang) has belonged to the English, in whose hands it rapidly became one of the most-frequented places in the East. This little granite and basalt island, some 33 square miles in extent, forms a world apart, infinitely varied with hill and dale, woodlands and watercourses, rocky creeks, sandy beaches, groups of reefs, and islets. When first occupied it had a fishing and agricultural population of about 2,000 souls. Now the large city of *Victoria* (Kwantaïlu) stretches along the north coast around the roadstead formed by the strait, about 1½ miles wide, separating it from the mainland. Large villages have also sprung up at the outlets of all the valleys, while every headland is crowned with country seats or handsome buildings enframed in a dense vegetation of conifers, bananas, and bamboos. A fine roadway winds up to the culminating point of the island, whence a varied prospect is commanded of the busy city of Victoria, with its spacious quays, and of the broad roadstead crowded with shipping. During the first years of the settlement Victoria had the reputation of being a very unhealthy place: now it has become a sanatorium for the English residents in the East. Unfortunately, Hong Kong lies within the range of the typhoons which sweep the Chinese waters. In 1874 one of these

terrific storms blew down over a thousand houses, wrecked thirty-three large vessels, with hundreds of junks, and destroyed several thousand lives.

Forming the outpost of England in the Chinese world, Hong Kong presents as great a variety of types as almost any other spot on the globe. The Parsees, the most respected of all strangers, are thoroughly domiciled in these waters, where

Fig. 120.—Hong Kong.

Scale 1 : 160,000.

0 to 32 Feet. 32 to 160 Feet. 160 Feet and upwards.

3 Miles.

their traditional probity has at all times secured them a friendly welcome. Hindus of every branch, Malays, Burmese, Polynesians, and half-caste Portuguese have also been attracted to the island, while the bulk of the population consists of Chinese from every province in the empire. The exchanges between Canton and England are chiefly effected at Hong Kong, whence also is forwarded much of the European merchandise destined for Shanghai, Hankow, and Tientsin. The

shipping in the roadstead exceeds 4,000,000 tons yearly, while the exchanges amount altogether to about £12,000,000. Victoria still retains its monopoly in the movement of the precious metals; but much of its general trade has already passed into the hands of the native dealers, those especially of *Kowlun*, on the opposite side of the strait. At *Aberdeen*, known also as "Little Hong Kong," a small town

Fig. 121.—Hong Kong: View taken from Kowlun.

on the south-west side of the island, several building yards and repairing docks have been built, and some large sugar refineries have also recently been erected here.

Macao.

The Portuguese settlement of *Macao* (the Ngaomen of the Chinese), lying over against Hong Kong on the opposite side of the Pearl River estuary, is not officially detached from China. The Imperial Government has never recognised the absolute sovereignty of Portugal over this peninsula, and has always enforced

payment of the tribute of £150 imposed by the Emperor Kang-hi, and collected by a mandarin resident on the spot. Nevertheless Macao is practically a Portuguese possession, and the European quarter of Praya Grande presents the aspect of a town in Estremadura, with its large red or yellow houses, heavy balustrades, and vast monasteries now converted into barracks. Its so-called Portuguese inhabitants

Fig. 122.—Macao.

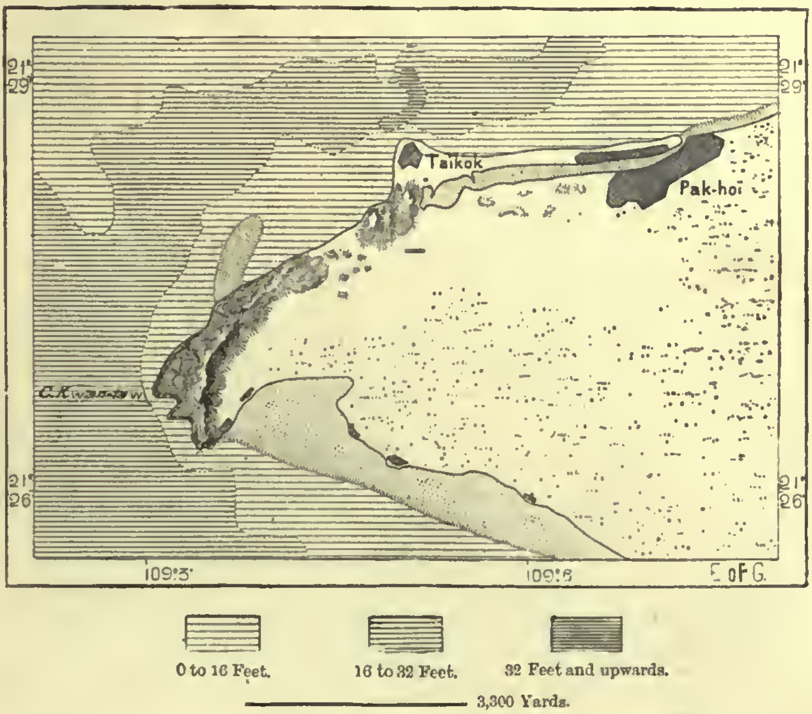
Scale 1 : 40,000.

are, however, almost exclusively half-castes, and even these are now encroached upon by the natives, who, although forbidden to build houses in this quarter, buy up those of the old Lusitanian owners, replacing the image of the Madonna with their ancestral shrines.

Macao is conveniently situated for trade, occupying a district some 12 square miles in extent at the southern extremity of a large island in the delta, which is

connected with the mainland by a sandy dune formerly fortified. The roadstead, being sheltered by hilly islets from the full fury of the typhoons, is accessible to large vessels from the sea, as well as to river craft both from the Pearl River and the western estuary of the Si-kiang. For nearly three hundred years Macao enjoyed a monopoly of the European trade with China, but the opening of the treaty ports at last deprived it of its exclusive advantages. Since then its dealers turned to the traffic in slave labour, and the "barracões" of Macao became a depôt for the coolies captured or purchased on the seaboard, and forwarded as voluntary hired labourers to Peru and the West Indies. The protests of the Peking Government put an end to this shameful traffic, and since 1873 most of the contracts are

Fig. 123.—Pakhoï.
Scale 1 : 100,000.



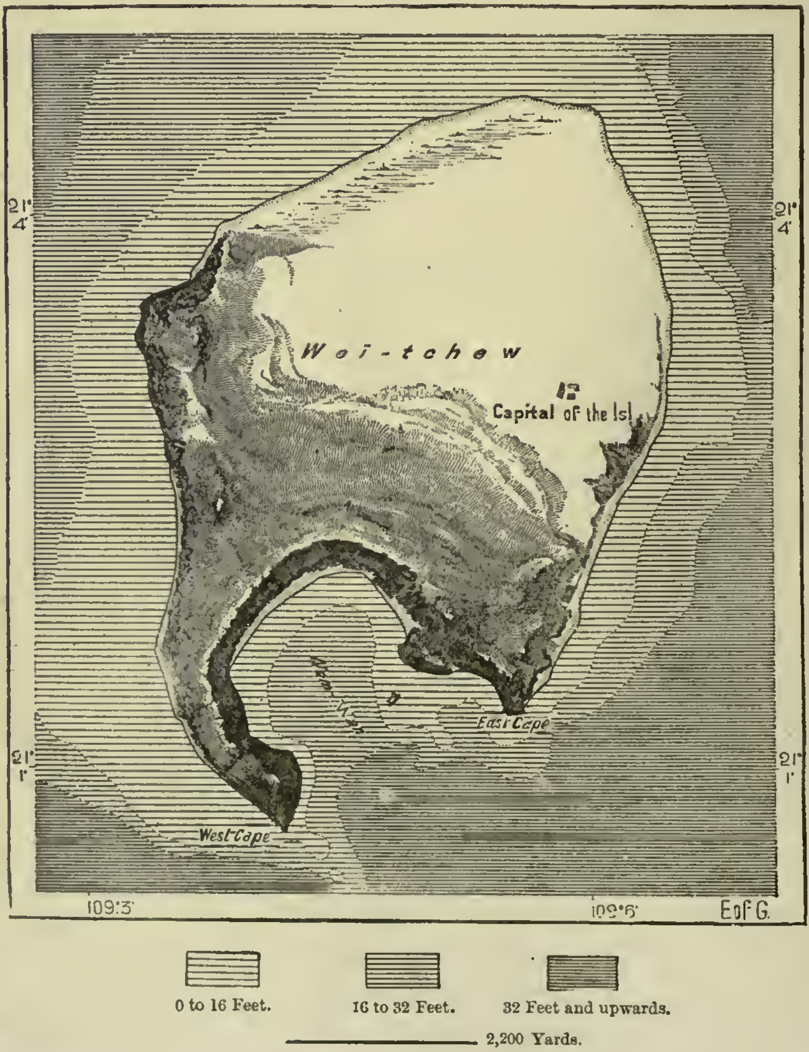
signed at Whampoa, with every guarantee against former abuses. And now Macao has turned to gambling and lotteries, its notoriety amongst Eastern cities being chiefly due to these attractions. The local trade, almost exclusively in the hands of native dealers, consists chiefly in tea, rice, sugar, silks, and indigo, mostly shipped on Chinese junks. The few European vessels that take part in the traffic import salt from Cochin-china. The Municipal Council (*Leal Senado*, or Loyal Senate) is elected by universal suffrage.

Macao is famous in the literary world. Camões resided for eighteen months, in 1550 and 1560, in this place, where he is said to have composed a portion of the "Lusiad." A rent rock forming a sort of grotto is still shown, where he is tradi-

tionally supposed to have resided. In the town cemetery is the tomb of Morrison, one of the most distinguished labourers in the field of Chinese philology and geography. Francis Xavier, the celebrated Jesuit missionary, who introduced the Catholic religion into Japan, died in 1552 on the neighbouring island of St. John (Changchwen, or Sancian). The English of Hong Kong have acquired

Fig. 124.—Wei-chew.

Scale 1 : 75,000.



numerous villas near Macao, to enjoy the sea breeze, which blows regularly on this coast.

West of Macao follow a number of seaports on both sides of the peninsula projecting towards Hainan. But here the only treaty port is *Pakhoï* (*Pei-haï*), or "White Sea," on a lagoon communicating at high water with the Gulf of Tonking through the Lienchew estuary. Here the chief staple of the local trade is salt fish,

and although no European vessels visited the place till the year 1879, Pakhoï seems destined to a brilliant future. It is the terminus of a highway running directly through *Lienchew* and *Yulin* to the fertile districts of the Yu-kiang, whose produce is at present forwarded by the long and difficult route of the Si-kiang to Canton. Owing to the dangerous sand-banks, vessels are obliged to anchor in the offing nearly a mile from the coast, where they are sheltered at ebb by the Along bank, but exposed at high water to a heavy surf. These waters are also occasionally swept by the typhoons, which, however, pass mostly to the south of the Kwan-tau headland. Beyond this point the inlet between the Gulfs of Liechew and Pakhoï is obstructed in many places by the stockades of the fishers, rows of which are sunk even in depths of 50 or 60 feet.

South of Pakhoï the volcanic island of Wei-chew raises its blackened walls in the middle of the gulf. At its southern extremity the crater, which has fallen in, forms a regular cirque, facing southwards, and nearly 2 miles in diameter from headland to headland. Till the middle of the present century this island was exclusively inhabited by pirates, but is now occupied by a peaceful population of about 3,000 souls, mostly immigrants from the Liechew peninsula, engaged chiefly in agriculture and fishing.

YUNNAN.

This province, the richest in mineral wealth and one of the most important in the variety of its produce, is at the same time the least solidly attached to the empire. A portion only of the land, and that the most rugged and thinly peopled, belongs to the Yang-tze basin, while the western half is drained by the two great rivers of Indo-China, the Salwin and Mekhong, and the southern extremity sends its waters through the Hung-kiang ("Red River") to the Gulf of Tonking. Recently a large part of the province had even become politically independent, cutting off the communications between the loyal inhabitants and the rest of China. The authorities then turned for assistance beyond the frontier through the Red River. This route thus for a time acquired a vital importance, and the opportunity was turned to account by the explorer Dupuis, who followed the course of the stream, and opened it to trade and science. But after the suppression of the Panthay rebellion the imperial highways have been reopened, the peasantry are now returning to their villages, and the gaps made by massacre and famine are being filled up by fresh settlers from Sechuen, Kweichew, and Kwangsi. But although it has thus again become an integral part of the empire, Yunnan remains none the less an outlying region, of difficult access, and far removed from the seat of power. Of all the provinces it has always been the most thinly peopled, and since the recent disasters its population has been reduced probably by one-half. Its area is somewhat vaguely estimated at 127,000 square miles, but the frontier-line is ill defined towards Tibet, Burma, Siam, and Annam, where numerous independent hill tribes occupy the border-lands.

Broadly speaking, Yunnan may be described as a rugged plateau inclined in

direction from the north-west to the south-east. On the Tibetan and Sechuen frontiers the unexplored ranges rise above the snow-line, while the central part of the plateau has a mean elevation of perhaps 7,000 feet, above which the red sandstone ridges maintain a uniform elevation. Large lakes fill the depressions of this tableland, the outer scarp of which is furrowed by deep river gorges, while southwards the Irawadi and Red River basins expand into broad plains, scarcely more than 600 feet above the sea. Every transition of temperature is met between the northern uplands, with their snow-clad ranges, and these southern lowlands, which penetrate into the torrid zone. At Yunnan-fu, on the intermediate plateau, the snow lies at times for weeks together on the ground.

A pre-eminently mineral region, Yunnan exported wrought-metal wares even before the arrival of the Chinese. The aborigines had everywhere mines and workshops, especially for the treatment of iron, which of all minerals is here the most abundant. Rich copper ores are also found, and the imperial taxes raised from the mines and metal workers amounted before the rebellion to nearly 6,000 tons of copper yearly. Gold-washings are also numerous along the Kinsha-kiang and other watercourses. But far more productive are the silver mines, besides which Yunnan also possesses deposits of cinnabar, zinc, lead, and in the Red River basin a rich tin lode, while its coal measures are both extensive and of excellent quality. With such vast and varied treasures, the province promises to become some day the great mineral mart and metallurgic workshop of the empire. It also abounds in precious stones, such as rubies, topazes, sapphires, and emeralds, while costly varieties of jade and marble are found in the highlands. Parts of these highlands are still covered with vast forests, supplying valuable timbers, notably the nanmu laurel, which, owing to its extreme hardness and penetrating perfume, is much employed in temples and palaces. Since the suppression of the Mohammedan insurrection, Yunnan has become the chief seat of the opium industry, and notwithstanding the pretended Government edicts, at least one-third of the cultivated land is now under the poppy. The upland pastures support large flocks of sheep, whose wool is utilised, but whose flesh is never eaten.

There are few Asiatic regions where an improved system of communication would be attended by greater results than in Yunnan. Not only does this province require good routes and railways to export its minerals and other produce to China and abroad, but it also offers the most direct line of communication between India and the Yang-tze basin. The Brahmaputra, Irawadi, Salwin, Mekhong, and other rivers diverging from East Tibet and Yunnan, point out in a general way the direction of all the routes whose natural centre is on the Yunnan-fu plateau. A straight line drawn from Calcutta, through the cities of Yunnan to Hankow, may at some future day get rid of the tedious circumnavigation of Further India and South China, whereby a saving of 3,600 miles would be effected. Hence the efforts that have in recent times been repeatedly made to establish regular relations between India and China across Yunnan. In 1867 the memorable French expedition up the Mekhong threw open the southern frontier of this province, and Yunnan-fu

was again visited by Francis Garnier, Dr. Thorel, and other Europeans for the first time since the days of Marco Polo. In 1868 Cooper, starting from the Yang-tze, attempted in vain to reach Assam through Batang and Tali-fu. He again failed the next year to gain the plateau from the Brahmaputra basin; while Sladen, aiming at the same goal from the Irawadi and its affluent, the Taping, had to retrace his steps after penetrating beyond Momein, the chief city of Yunnan west of the Salwin. In 1871, after the final overthrow of the Panthays, Augustus Margary at last succeeded in opening the direct route from Hankow to Bhamo, on the Irawadi; but the victory was dearly bought, the young and daring explorer having been barbarously assassinated a few weeks afterwards within 30 miles of the

Fig. 125.—Upper Song-koi Valley.
Scale 1 : 2,000,000.

Burmese frontier. England was stirred to the heart by the news of his sad end, and a long diplomatic correspondence ensued, resulting in much promise for the future development of international trade. In virtue of the Chefu convention, concluded in 1876, the British Government is entitled to appoint commercial agents in Tali-fu or any other city in Yunnan, and to equip a scientific expedition for Tibet either through Sechuen or Kansu and the Kuku-nor region. Hitherto no advantage has been taken of this valuable concession, although several explorers have followed the footsteps of Margary. Yunnan has been crossed in various directions by Grosvenor, Baber, MacCarthy, Cameron, Gill, Stevenson, Soltau, who have prepared the way for the future establishment of regular international relations.

But pending free intercourse with India through Bhamo, Yunnan has direct access to the foreign market through the navigable Hung-kiang, or Red River, explored for the first time by Dupuis in 1870. In 1872 he ascended the Song-koi, as this river is called in Tonking, and through this channel penetrated into China as far as Manhao (Manghao), in the neighbourhood of a district abounding beyond all others in metals and precious stones. By a treaty concluded in 1874 between France and Annam, the Red River had been declared open to foreign trade. But this treaty has remained a dead letter, and since the expedition of 1873 no foreign vessel has visited the Song-koi. Nevertheless the advantages of this trade route have been recognised by the Chinese merchants, who might save by this way a détour of 600 miles by the Canton River.

Inhabitants of Yunnan.

Although Chinese supremacy has been established for some two thousand years in Yunnan, the population is still far from homogeneous. The highland regions continue to be held by unsubdued tribes, such as the Miaotze, Mantze, Lutze, Lisu, Lolo, Shan, and Kakhyen. The Miaotze belong to the same family as those of Kweichew, the Mantze and Lolo to those of Sechuen. The latter are generally divided into "Black" and "White" Lolo, more perhaps from the contrast in their habits than from a difference of complexion. The Black, known also as "Raw" Lolo, mostly occupy the alpine valleys in the north, while the White, called also "Cooked" or "Ripe," are scattered in small groups all over Yunnan, and are everywhere subject to the Chinese authorities. Many shave the head and wear the pigtail, emblem of civilisation in the Middle Kingdom, but they are easily distinguished from the Chinese proper by their muscular development and energy at work. But for the somewhat flat nose and sparse beard, their regular features and symmetrical figures might suggest the European type. Many have even chestnut hair and a white complexion, while the women are much stronger, more cheerful and agreeable than their Chinese sisters. Hence the Chinese often choose their wives amongst these aborigines.

The Lutze-kiang takes its name from the Lutze, or Anong, who dwell on its banks in a region of West Yunnan bordering northwards on the Lolo country. Some Lisu tribes are also scattered in the valley of this Tibeto-Burman river, as well as in that of the Lantze-kiang (Mekhong), which in this part of its course traverses Yunnan. The hills on the right bank over against Weisi-fu are almost exclusively occupied by the Lisu. Those dwelling near the Chinese towns and near their more civilised kinsfolk, the Moso, pay the tribute regularly; but those residing in the more inaccessible highlands have maintained their independence, and they have a tradition requiring them every twenty or thirty years to make a plundering expedition against the people of the plains. Like certain North American Indians, they never fail first to warn the enemy of their approach. At the stated time they make their appearance at the stated place, and such is the dread of the Chinese settlers that they are generally vanquished by these savages armed with bows and

arrows dipped in aconite. The Lisu carry off the women and children, and sell them to the Burmese. They also seize the silks and jewellery, and consign the houses of their enemies to the flames. Yet the mandarins deny the existence of these dangerous neighbours, and even forbid their names to be pronounced. Their complete destruction having been announced to the Central Government some generations ago, these tribes have ever since been *officially* extinct.

In peaceful times the Lisu are very hospitable, and are distinguished amongst the surrounding peoples for their spirit of clanship and solidarity. The land is held in common, every family settling down wherever it pleases, and cultivating the open tracts, or the clearings obtained by firing the forests. They trade with the neighbouring tribes, and thus obtain the cowries (*Cypræa moneta*) from the Maldive Archipelago, with which the head-dress of their women is entirely covered. They have rejected the Buddhist missionaries, and still adhere to the Shamanist practices formerly universal throughout the extreme East. Their wizards cast lots to attract the good spirits, and beat the tom-tom to scare the demons of the springs, rocks, and woodlands.

The Shans, or "White Barbarians" of the Chinese, are more numerous in Burma than in the Middle Kingdom, where they only occupy the south-west corner of Yunnan west of the Salwin or Lu-kiang. All are subject to the mandarins, who appoint the village head-men, making them responsible for the taxes. The Kakhyens (Kachin), or Sing-po (Chingpo), as they call themselves, are one of the most enterprising races in the country, and regard the Shans as an inferior people, good enough to supply them with muleteers and porters. Of small stature, but robust and energetic, they pass much of their time in feasting and attending to the toilet, tattooing arms and legs, and covering their dress with shells and all kinds of ornaments. The women do all the work, even tilling the land and carrying burdens. Hence the wife is chosen, not for her beauty, but for her physical strength, and he is reputed the happiest paterfamilias who possesses the greatest number of daughters, all destined to a life of ceaseless labour. Although surrounded by Buddhist populations, the Kakhyens have retained their old animism, still addressing their prayers to the *nats*, or protecting genii. As in certain parts of West Europe, they place a piece of silver in the mouth of the dead, to pay their passage over the great river that flows between the two lives.

The Pei (Pai, Payi, Payu), an aboriginal people in the south and south-west of Yunnan, and especially in the Salwin basin, are divided, according to their respective domains, into Highland and River Pei. At some remote period they traditionally inhabited the banks of the Yang-tze-kiang, whence they were gradually driven south by the advancing tide of Chinese migration. Neighbours of the Lolo, and kinsmen of the Shans, they associate little with them, dwelling in isolated villages, with flat-roofed houses like those of the Tibetans and Miaotze. Their complexion is whiter than that of the Chinese, and, like the Lolo, they are also distinguished from them by their physical strength. All insert in the lobe of the ear either a silver cylinder or a bamboo tube, an ornament replaced by the women with a cigar or a tuft of straw. Most of the latter smoke tobacco, while the men have taken to opium. The women

are very industrious, and are skilled at weaving, and even at the goldsmith's art. In speech, and probably in blood, the Pei are allied to the Laos of Indo-China, while the Lolo speak various more or less mixed dialects of Burmese, Chinese, or Tibetan. The Papé, a tribe related to the Pei, are the only survivors of a formerly powerful nation, which the annals tell us were condemned by the Son of Heaven to send him a tribute in objects of gold and silver, rhinoceros horns, and tusks of elephants. The local fauna would therefore seem to have undergone a change within the historic period, for all these large mammals have long disappeared. Neither the Pei nor the Papé have any idols, but when they come amongst civilised peoples they freely enter the temples, make offerings, and burn incense, like the ordinary worshippers.

Fig. 126.—Chinese of Yunnan.

Chinese culture is in other respects gradually prevailing, while the original types are being modified by intermixture. Amongst the half-castes sprung of these alliances are several communities which, while speaking Chinese exclusively, still betray the presence of aboriginal blood in their muscular development, independent spirit, and rude habits. "We are not Chinese," they insist haughtily; "we are Yunnan people" They have more than once sided with the Panthays or natives against the mandarins. They differ also from the Chinese in their cheerful spirit and love of music. Nearly all the muleteers or carters accompany the pace of their animals with their mandolines.

The Panthay Insurrection.

The insurrection of 1855, which for a time raised West Yunnan to the rank of an independent state, began with a quarrel between some Buddhist and Mohammedan miners at Shiyang about the source of the Red River. Nowhere else in China had Islam made so much progress as in Yunnan. Sprung of a few early Arab immigrants and of some Bokhariot soldiers brought hither by Kublai Khan in the thirteenth century, the Hoï-Hoï of Yunnan cannot now be physically distinguished from the surrounding Chinese. But the different rites, and especially the clash of interests in the mining districts, fostered mutual hatred and brought about frightful massacres. At the same time the most varied elements were found amongst the rebels, collectively known abroad by the Burmese name of Panthay. In the Mohammedan ranks were Buddhist and Taoist Chinese,

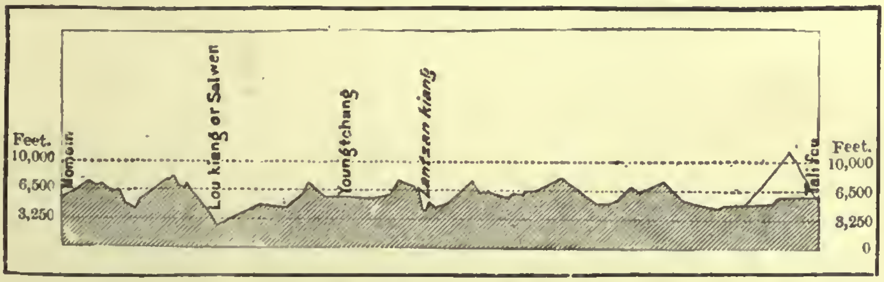
besides Lolo, Pai, Miaotze, and many other tribes. On the other hand, many Mussulmans remained faithful to the Imperial cause, and it was one of these who, after fighting successfully on the rebel side, brought about the ultimate triumph of the Chinese. A number of the vanquished Panthays withdrew to the Shan and Kakhyen hill tribes on the frontiers of Siam and Burma. But the gaps thus made have been filled up by immigrants, chiefly from Sechuen. Besides civil war, Yunnan has also recently suffered from the spread of leprosy and of pestilence, which has made great ravages amongst men and animals. The epidemic seems here always to begin with the rats.

Topography.

Momein, or *Tengyueh-ting*, the only important Chinese town in the Irawadi basin, lies in a vast rice-growing plain enclosed by steep mountains. It is regarded by the English as the natural gate of South-west China, and its name constantly recurs in all railway projects. Farther east there are no large places in the deep

Fig. 127.—Route between Momein and Tali-fu.

Scale 1 : 2,600,000.



The Heights are decuple of the Distances.

60 Miles.

valley of the Lutze-kiang (Lu-kiang, or Salwin). But *Yungchang-fu*, on one of its affluents, is a busy mart largely inhabited by refugees from Nanking, whence its title of "Little Nanking." It has been identified with Marco Polo's Voshan (Vouchan, Vonciau), where in 1272 or 1277 Kublai Khan's 12,000 Tatars routed 60,000 Burmese with their 2,000 elephants.

On a tributary of the Upper Lantzan-kiang, flowing between tremendous gorges, *Atentze* guards the Yunnan frontier towards Tibet. In this district most of the civilised inhabitants are Chinese, but nearly all speak Tibetan better than their mother tongue. Atentze lies in an upland plain over 11,000 feet above sea-level, and is commanded by Buddhist monasteries, whose lamas obey the high priest of Lassa. The Atentze traders sell tea, sugar, and tobacco to the Tibetans in exchange for musk, skins, parchments, and a species of grub highly valued by the Chinese on account of its supposed medicinal properties. South of Atentze rises the snow-clad Doker-la, and on the banks of the river farther north are the Yerkalo saline hot springs.

Weisi, on an eastern affluent of the Lantzan-kiang, is a garrison town ruined by

the civil war, and now mainly peopled by Lisu and half-castes. *Tali-fu* also, which occupies a much more convenient position on the west side of the vast lake of like name, was still in a ruinous state when visited by Gill in 1877. All the surrounding villages were wasted during the insurrection, and not a tree was left standing in the district. To its strong strategical position Tali-fu was indebted for all its

Fig. 128.—Tali-fu and Lake Tali.

Scale 1 : 550,000.

12 Miles.

misfortunes. The plain where it stands terminates north and south in a narrow defile between the hills and the lake, and these two passes have been strengthened by fortifications, which have converted the whole coast of Tali into a vast citadel. In the time of Marco Polo this place, then called Carajan (Karayang), was the "capital of seven kingdoms," and one of the great cities of South China. Recently

LAKE TALI—VIEW TAKEN FROM THE NORTH.

it again acquired the rank of a capital, having been chosen as the residence of the Mohammedan King Tuwhensia, or Sultan Soliman. On the entry of the Imperialists in 1873, over half of its 50,000 inhabitants were massacred, and the commander of the forces was able to send to Yunnan-fu twenty-four large hampers full of human ears. The suburbs were fired, and the city half ruined. But Tali can scarcely fail to recover from its disasters. Besides its administrative importance, it enjoys the advantage of its fertile plains, mines of salt and the precious metals, marble quarries, besides which it is the natural entrepôt of trade between Bhamo and Ningyuen; that is, between Burma and Sechuen. Lying over 6,500 feet above sea-level, near the tropical zone, it enjoys an excellent climate, without a winter season, although the mountains rising 10,000 feet above the west side of the lake are snow-clad for eight or nine months in the year.

The lake, better known by the name of Erh-hai, is 30 miles long according to Gill, and develops a crescent stretching north and south, with a mean breadth of about 6 miles. In the deeper parts there is over 300 feet of water, but elsewhere it is much shallower, and in the south studded with a few islands. During the rains its level is sometimes raised 16 or 18 feet, when the torrent is changed to a copious stream, which carries its outflow through the Yanghi-kiang to the Mekhong. Like all its influents, the lake abounds in fish, which the natives take with the aid of water-fowl trained for the purpose.

Shunning-fu, Yun-chew, Semao, and the other places in the Mekhong basin south of Tali-fu, also suffered from the consequences of the late outbreak. *Menghoa-hien,* near the source of the Red River, 30 miles south of the lake, was distinguished beyond all others for its heroic defence, and when further resistance became impossible, all valuables were hastily collected together and burnt. Poison was then distributed amongst the old men, women, and children, the four corners of the city were fired, and the handful of surviving combatants mostly perished in the attempt to cut their way through the besieging forces.

Likiang-fu, in the Upper Kinsha-kiang basin north of Tali-fu, has not yet been visited by any European traveller; but when Gill passed west of it he was told that it had been ruined by the oppressive rule of the mandarins. Other places in the same district had been completely destroyed either by the Panthays or the Imperial forces. In the portion of Yunnan draining to the Yang-tze only three large towns remain intact. One of these is the provincial capital, *Yunnan-fu,* situated in a plain near the northern extremity of the largest lake in North Yunnan. This lake, known as the "Sea of Tien," from a kingdom of that name formerly comprising the greater portion of the plateau, lies about 6,500 feet above the sea, and sends its superfluous waters through the Pulu-shing emissary northwards to the Yang-tze. The district is productive in cereals, flax, tobacco, and fruits. But the introduction of the opium industry is said to have ruined that of wax, of which large quantities were formerly produced. The natives state that the bees, attracted by the poppy flower, all perished from its poisonous effects after the second season. Yunnan-fu, identified by some with Marco Polo's *Yashi,* is the centre of one of the chief mining regions in the province. It controls the current price of copper for the whole of China,

and has some large metallurgic works, including a mint over two hundred years old, which before the revolt issued coins to the yearly value of about £4,000. A hill towards the north-west is crowned by a copper temple, which was spared by the rebels because it commemorated the national King Usankwei, who dared to resist the authority of Kang-hi. Still farther north another hill on the Sechuen frontier is occupied by a group of buildings, including a church and seminary, which the Catholic missionaries have converted into a formidable stronghold against the incursions of the Mantze tribes.

The *Leang-shan* highlands, on the common frontier of Kweichew, Sechuen, and Yunnan, are occupied by a peaceful population of Buddhists, Mohammedans, and aborigines, who continued to live in perfect harmony throughout the seventeen years of the late civil war. Here one of the chief mineral products is a salt of lead employed in porcelain painting, and exported by the Yang-tze route as far as Kiangsi. In the eastern section of the province draining to the Si-kiang basin are several important places, such as *Chungching-fu* and *Kaïhoa-fu.* Farther south stretches an extensive lacustrine district, where the fresh-water tarns have no visible outlet, although the two large lakes, Ching-kiang and Kiangshwen, communicate through an artificial canal, over a mile long, cut through a quartzose sandstone hill.

Fig. 129.—Yunnan.
Scale 1 : 1,000,000.

The towns in the southern district drained by the Red River and its head-waters are chiefly mining centres, although *Yuen-kiang*, on the left bank of the Hoti-kiang, as the main stream is here called, is also a large entrepôt for agricultural produce. In this rich tropical district the mango, guava, citron, orange, and other southern fruits flourish by the side of the more hardy peach, apple, pear, walnut, and chestnut. Farther east the chief places are *Lingan-fu* and the busy mart of *Manhao* (*Mang-ko*), at the head of the navigation of the Red River, the depôt for the teas, cottons, and silks of the whole of South Yunnan. The trade of the place has been monopolized by some enterprising merchants from Canton, and at the time of the French Expedition a Cantonese chief had even set up as an independent prince at *Laokaï,* on the frontier of China and Tonking. The custom-house he had established on the river was said

to yield him a yearly revenue of £60,000. At present the place seems to have fallen into the hands of an independent Chinese military tribe, which has assumed the title of "Black Banners."

HAINAN.

This large island, administratively attached to the province of Kwangtung, also belongs evidently to the same geological formation as the mainland. The strait

Fig. 130.—Hainan Strait.

Scale 1 : 2,250,000.

0 to 32 Feet. 32 to 80 Feet. 80 Feet and upwards.

60 Miles.

flowing between it and the adjacent peninsula, and connecting the Gulf of Tonking with the China Sea, is only 12 miles wide, and at low water scarcely 38 feet deep in the centre, with a current running at the rate of 3 or 4 miles an hour. The main axis of the chief mountain range stretches south-west and north-east, consequently parallel with the general orographic system of China. The central mass, known as the Wushih-shan, or "Five-finger Mountain," throws off five spurs, like the Peloponnesian Taygetus, whence the Chinese poets have compared the island to

a hand, whose fingers "play with the clouds by day, and at night gather the stars of the milky way." They also speak of snow-clad crests, although in this tropical climate peaks less than 16,500 feet high could not remain covered with snow throughout the year. Even an occasional fall of snow would imply an elevation of about 6,000 feet. But whatever be their altitude, these central highlands send down numerous torrents in all directions to the coast, which forms an irregular oval 480 miles in extent.

Hainan is one of the least-known parts of China. The rivers have been traced on the maps either from old Chinese documents or from native reports, while even the seaboard has been carefully surveyed only on the north side. It is uncertain whether the Nankien-kiang, flowing north-west, really ramifies into the two navigable rivers, Peimen-kiang and Kien-kiang, or Ta-kiang, with a total development of 180 miles. It is even said to throw off a third branch, also navigable, directly to the Gulf of Tonking, forming altogether a disposition of running waters in a hilly island elsewhere unparalleled.

Hainan abounds in natural resources of all kinds. Its mountains contain gold, silver, copper, iron, and other metals; hot springs bubble up, especially in its western valleys; the hillsides are clothed with dense forests, supplying excellent building material, and still harbouring the tiger, rhinoceros, a species of ape resembling the orang-outang, deer, and wild goats. Lower down flourish the coco, areca, and betel-nut palm; while pine-apple hedges line the fields under the sugar-cane, mango, banana, litchi, indigo, cotton, tobacco, rice, potato, sesame, and tropical fruits. Here is also the *Coccus-pela* insect, which yields the vegetable wax of commerce, and the surrounding waters abound in fish, the turtle, and pearl oyster. Lying in the track of the south-west monsoons, the island is abundantly watered, while the tropical heats are tempered by cool sea-breezes from the north-east. Although within the zone of the typhoons, Hainan suffers much less than Formosa from these fierce whirlwinds.

When speaking of its inhabitants, Chinese writers compare the island to a circle enclosing two concentric rings. In the centre live the wild aborigines, in the outer zone the Chinese settlers, and between the two the civilised natives. The various tribes that have withdrawn to the valleys of the interior are collectively known by the name of Li, or Loï, and speak a language akin to that of the continental Miaotze. Some of the Song-li, as the more savage tribes are called, go almost naked, dwelling in caves or narrow retreats covered with a straw roof, and split up into numerous hostile septs, with different dress, arms, and customs. The Nawtong wear the hair gathered in curls on the forehead, while the Kac Miau plant bits of bamboo like horns on the top of the head. The Shuh, or "Ripe"—that is, settled and civilised—Li have been joined at various times by Miaotze refugees from Kwangsi and West Kwangtung, whom they resemble in speech and habits. But the dominant race have long been the Chinese, of whom 23,000 families colonised the coast lands some two thousand years ago. In 1835 they numbered 1,350,000, and are now said to exceed 2,500,000. Mostly from Fokien and Kwangtung, they have suffered much from the pirates formerly infesting these waters, but they

have never had much to fear from the aborigines, whom they have gradually driven to the interior. The local traffic is promoted by the numerous havens round the coast, and by the regular trade winds, which the native junks take advantage of to visit Tonking, the Philippines, Cochin-china, and even the distant islands of Java and Singapore. As on the neighbouring mainland, the Chinese communities are divided into hostile Puuti and Hakka factions, between which the hereditary feuds have even recently given rise to fierce outbreaks.

Kiungchew, the capital, and the largest city in the island, naturally lies on the north side over against the mainland, at the most convenient point for landing and forwarding the local produce to Hong Kong and Canton. The surrounding district is extremely fertile and densely peopled, and the city, enclosed by a wall 40 feet high, lies 6 miles from the sea. But its outport of *Hoï-how* (*Haï-kow*), also by foreigners generally called Kiungchew, stands on a bay on the south side of the strait, and has been opened to European trade since 1858. The chief exports are sugar, sesame, dressed leather, pigs, poultry, and pigeons for the markets of Macao and Hong Kong. The harbour is so shallow that large vessels are obliged to anchor nearly 3 miles off, under a sand-bank, which protects them from the surf.

Next to the capital the most important places are *Tingan*, on the Ta-kiang, the largest mart for agricultural produce; *Linkao* and *Tanchew*, on the north-west coast, surrounded by sugar plantations; *Aichew*, on the south; *Wanchew* and *Lohui*, on the east side.

FORMOSA.

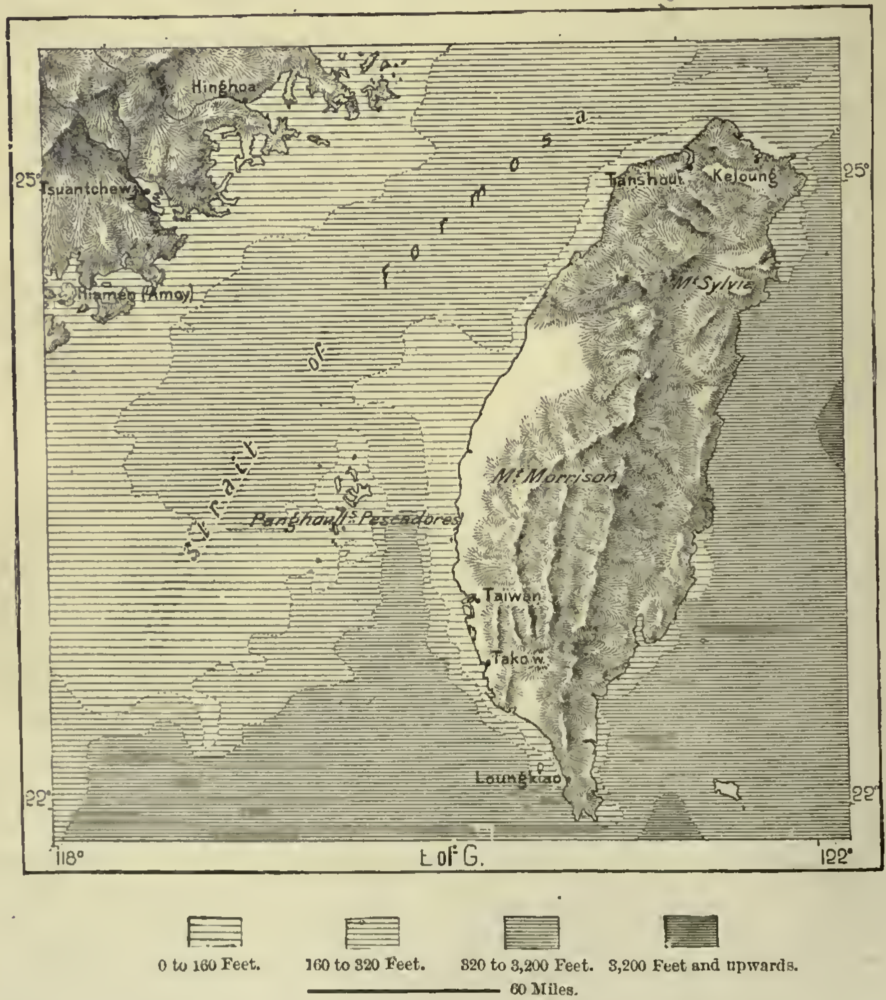
Like Hainan, which it somewhat exceeds in size, and probably in population, Formosa belongs geologically to the mainland. Close to the east coast the sounding-line plunges at once into depths of 7,000 feet, whereas Fokien Strait, on the west side, has a mean depth of scarcely 140 feet, and contracts to a width of 80 miles at its narrowest part. Even about the southern entrance of the strait the sea is studded with the Pescadores (Panghu) Islands, which are continued westwards and south-westwards by dangerous shallows. Politically and ethnically, also, Formosa is simply an appendage of the neighbouring province of Fokien.

Known to the old geographers by the name of Great Luchew, and now officially called Taiwan, from the name of its capital, this island presents the form of an elongated oval, some 240 miles long north and south, and traversed throughout its entire length by a regular water-parting, which falls abruptly eastwards, while sloping gently towards the mainland. This Ta-shan, or "Great Range," as it is called, scarcely exceeds 8,000 feet in the south, but in the centre Mount Morrison attains a height of over 11,000 feet, while the system culminates northwards with Mount Sylvia and other peaks rising to elevations of 12,000 feet and upwards. The Ta-shan consists mainly of carboniferous limestones, with igneous rocks cropping out here and there. Mention is even vaguely made of an active volcano, the Kiai-shan, in the centre of the range, and earthquakes are still frequent in many places. The coast seems even to be rising, whereas the opposite seaboard

between Ningpo and Canton is subsiding. When the Dutch held Taiwan, on the south-west side, a navigable strait, accessible to fleets, flowed between the two citadels. But this channel is now dry land, intersected by canals and roads, which are partly covered during the spring tides, so that the shipping now anchors about 2 miles from the old fort.

The first European navigators who sighted Taiwan early in the sixteenth century were so struck with its picturesque appearance that they aptly named it

Fig. 131 —Formosa and Fokien Strait.
Scale 1 : 4,000,000



Formosa, or "the Beautiful." Probably no other oceanic island has better claims to the title, at least on its east side, facing the Pacific. The central range throws off right and left numerous spurs and side ridges, all varying in height and aspect. Peaks, crests, rugged crags, rounded domes, follow in endless variety from the interior to the headlands along the coast; while the mountain torrents everywhere break into foaming waterfalls, or rush through dark gorges amidst the bright tints

Fig. 132.—Highland Landscape, Formosa.

of a dense sub-tropical forest vegetation clothing all the surrounding valleys. The native villages are suspected rather than seen, embowered in bamboo and palm

thickets, which flourish down to the verge of the ocean, and crown the cliffs that are everywhere cut by the beating waves into a thousand fantastic forms.

The extraordinary wealth of the Formosan flora is due partly to the neighbourhood of the continent, partly to the different climatic zones superimposed one above the other along the mountain slopes. The coast lands belong to the tropics, while the hills and mountains rise to the temperate and colder atmospheric regions. There is further a regular succession of monsoons, the wind blowing in summer from the Malay Archipelago, in winter from Japan. With this disposition of the aërial corresponds that of the oceanic currents, which on the east side set north-eastwards in the direction of the Japanese Kuro-siwo, or "Black Stream," but which in the shallow waters along the west coast flow alternately north and south under the action of the shifting trade winds. The island is thus exposed to the varying influences of the northern and southern climates, while also enjoying the advantage of an abundant rainfall. The greatest amount of moisture is received, not in summer, as mostly elsewhere in the extreme East, but in winter, during the prevalence of the humid north-east monsoon, when a rainfall of over 120 inches has been recorded at the Kelung station on the north coast. On the east side the atmospheric currents are occasionally reversed by the typhoons, which rarely penetrate westwards to the Fokien Strait. On the 18th and 19th of August, 1858, the naturalists on board the *Novara, en route* from Shanghai to the Carolines, observed one of these cyclones, which, while revolving round itself, described a vast curve above the southern limits of the Liu-kiu Archipelago. From hour to hour they were able to follow and record the successive points gained by the hurricane, which reversed the normal direction of these typhoons.

Although Formosa probably possesses no vegetable or animal species distinct from those of the continent, some forms occur which have not yet been met elsewhere. The prevailing species, corresponding with those of South Japan and Fokien, are often distinguished by their symmetrical and vigorous growth. Nowhere else in the Chinese Empire do the bamboos attain a greater height, being sometimes 100 feet high, with a girth of 24 inches. The large forests of the interior consisted chiefly of the camphor-tree before the ravages committed by the rapacity of modern traders. One of the most common plants on the coast lands is the *Aralia papyrifera*, a shrub with bare stem terminating in broad leaves, used in the manufacture of "rice paper."

Amongst the thirty-five species of mammals and one hundred and twenty-eight of land birds, there are fourteen and forty-three respectively which are found neither on the mainland nor on the neighbouring islands. This local fauna shows that the island has long been separated from the continent, although not long enough to greatly modify the prevailing types. Thus the tiger, wild boar, deer, antelope, monkeys, insectivora, and various species of ruminants and rodents correspond with those of the mainland, although several of these mammals are more closely related to those of India, Malaysia, and Japan than to those of China. The "rock monkey" recalls some of the Indian and Burmese varieties rather than those of South China and Hainan; while the beautiful deer discovered by Swinhoe, the

flying squirrels, and the *Macroscelis* ape are allied to those of Malaysia. More than half of the Formosan avifauna is also more nearly related to those of the Himalayas, South India, the Eastern Archipelago, and Japan than to those of the more adjacent Chinese lands. Amongst the new forms discovered by Swinhoe the most remarkable are some gallinaceæ and pigeons, a magnificent pheasant, some tomtits, sparrows, and the white-headed blackbird; but there are no parrots, as in

Fig. 133.—Typhoon of the "Novara."

Scale 1 : 8,520,000.

150 Miles.

the central and southern provinces of China. While the continental yellow-hammer migrates in vast numbers between India and Manchuria, the Formosan variety never leaves the island, merely passing with the seasons from the plains to the uplands. In the Tamshui River singing fishes are heard, like those of Trincomali Bay, Guayaquil, and San Juan del Norte.

Being visible from the mainland on clear days, Formosa has from the remotest

periods been known to the Chinese. But although the Panghu group had been long occupied by some fishermen, the island was never visited till the year 605 of the vulgar era, nor were any settlements made till the fifteenth century, when the north coast was occupied. An organized system of immigration was at last developed during the second half of the seventeenth century, after the expulsion of the Dutch traders and the destruction of the pirates. Yet within two hundred years the settlers, mostly from Fokien, have already occupied all the west side, besides the northern extremity and the north-eastern seaboard. The gradual settlement of these tracts was attended by constant struggles with the natives. In these conflicts the intruders have often had recourse rather to opium and brandy than to force, thus poisoning rather than murdering the race. Swinhoe also tells us that they have imported tigers from Fokien, and let them loose against their troublesome neighbours. Great rivalries prevail even amongst the Chinese themselves, the Hakka and other factions from the mainland continuing their dissensions in their new homes. Many have contracted alliances with the natives, adopting their customs, and remaining Chinese only in their dress and practice of wearing the pigtail.

Inhabitants of Formosa.

The aborigines are known by various names, nor is it yet possible to classify them according to their origin and mutual affinities. The Song-Fan, or "Wild Men," resemble the Malays, to whom they are usually affiliated. Their dialect certainly belongs to the widespread Malay family. Some varieties closely resemble the Tagal of Luzon, and seventeen tribes in the north even call their language Tayal, while in some districts the tribes take the name of Tangalan. But there are no Sanskrit or Arab words in any of the local dialects, so that the Formosans must have become separated from the Malay family before the introduction of Buddhism into the Eastern Archipelago. Since the dispersion the relations of the islanders have been exclusively with the Middle Kingdom, as shown by the number of Chinese words adopted in a more or less modified form in their dialects.

In the south-eastern highlands the Butan tribe has made itself formidable both to the other natives and to the colonists. Besides the bow and arrow, they now procure fire-arms from the Europeans, and it was this tribe that the Japanese came to chastise in 1874 for the massacre of a shipwrecked crew. To judge from the captives brought on that occasion to Tokio, the Butans resemble the Japanese rather than the Malay type. They mostly wear blue cotton garments, with silver bracelets, and enormous ear ornaments of bamboo. According to the native reports, some dwarfish black tribes also dwell in a highland region towards the south. They are mentioned by Valentyn so early as 1726, but although also spoken of by Swinhoe, no traveller has yet visited them. Two skulls studied by Schetelig are attributed to these Formosan Negritos, survivors of an old race now almost entirely extinct.

FORMOSAN TYPES AND COSTUMES—BUTAN CAPTIVES IN JAPAN.

Most of the unsubdued aborigines are tall, vigorous, and extremely active. Their gait has been compared by Guérin to that of the anthropoid apes. But the greatest variety of features prevails amongst these tribes, the faces of some being flat, of others as regular as those of Europeans. But many, with their large prominent eyes and restless glance, have a scared look, as if bereft of their senses. Goître is common in one tribe, and skin diseases very prevalent in the interior. The teeth are often dyed red by the constant use of the betel-nut, and in general much more regard is paid to ornament than to dress. Both sexes wear copper bracelets, coarse glass necklaces and girdles, bone plaques, and tinkling bells. The men pierce the lobe of the ear for the reception of a bamboo cylinder ornamented with designs, and all the unsubdued tribes still practise tattooing. Everything is regulated by traditional usage. Although there is no public worship, the daily actions are largely guided by omens, and all must be buried on the very spot where they die. Head-hunting is still practised, and a wooden platform attached to every house is usually adorned with the heads of their Chinese victims. But this pursuit cannot be continued much longer, for the independent natives have already been reduced to about 20,000 altogether, divided into a multitude of clans, which successively fall an easy prey to the ever-advancing colonists.

The already reduced tribes, collectively called Pepo-hoan, have become largely assimilated to the Chinese. Most of them have ceased to practise tattooing, and now wear the Fokien dress. Amongst them the Catholic and Protestant missionaries have been most successful, and the accounts of the Formosan people hitherto published by European travellers refer mainly to this Pepo-hoan element.

Topography.

Formosa, where Western influences have long been at work, promised at one time to become a European colony. The Dutch had obtained a footing in the Panghu Archipelago so early as 1621, and soon after set up their factories on the mainland, where the present city of Taiwan-fu is situated. But the young settlement was soon surrounded by hostile Chinese communities, and finally surrendered in 1662 to the pirate Chingching, better known in Europe by the name of Koxinga. Under his rule the English traded directly with Formosa; but after the definite establishment of the imperial authority in 1683, all foreign traffic was suspended till the year 1858, when the island was again thrown open to Europeans.

Taiwan, the capital, which has given its name to the whole island, is a modern Chinese city lying at some distance from the coast, and enclosed by ramparts 6 miles in circuit, within which are extensive gardens, cultivated lands, and pagodas. It is noted for its filigree-work, and does a considerable trade in sugar, exported chiefly to Australia. Some 24 miles south of Taiwan are the ports of *Takow* and *Tangkang*, besides the large town of *Pitao*, lying about 5 miles inland from the former place. Farther north the city of *Sinchow* exports rice and wheat through its outport of *Hongsang*. But a more important place is *Tamshui* (*Tamsui*,

Tangshui), near the north-west extremity of the island, where the European traders have made a settlement, notwithstanding its unhealthy climate. Tamshui was formerly the chief mart for the camphor trade, which has been greatly reduced since the destruction of the neighbouring forests. Camphor is now largely replaced by tea, the trade in which is yearly increasing in importance, especially with America. Junks ascend the Tamshui River to the colony of *Toatutia*, residence of the foreign dealers, and beyond it to *Mengka* (*Mongkia*, *Banka*), commercial

Fig. 134.—Pepo-hoan Woman and Child.

metropolis of the district. Some 7 miles farther east on the route to Kelung there are some sulphur springs, much frequented by invalids.

Kelung, although lying on the north coast about 30 miles east of Tamshui, is regarded as forming with that city a common port for foreign shipping. According to the natives, they are even connected by an underground passage, approached at either end by extensive caverns. The staple exports of Kelung are lignites, some of excellent quality, but the petroleum and rich sulphur deposits of the district still remain almost untouched. The headlands and islands in the neighbourhood of Kelung assume the most fantastic shapes, the lower and softer strata being eaten away by the waves, or hollowed out into picturesque grottoes and arcades. Most of

the islands, worn away at the base, have assumed the form of colossal mushrooms. On a headland at the east side of the entrance to the port are the ruins of some old Spanish fortifications.

The Liu-kiu Archipelago, stretching north from Formosa, seems destined to belong mainly to the Japanese, who have already occupied the central and northern

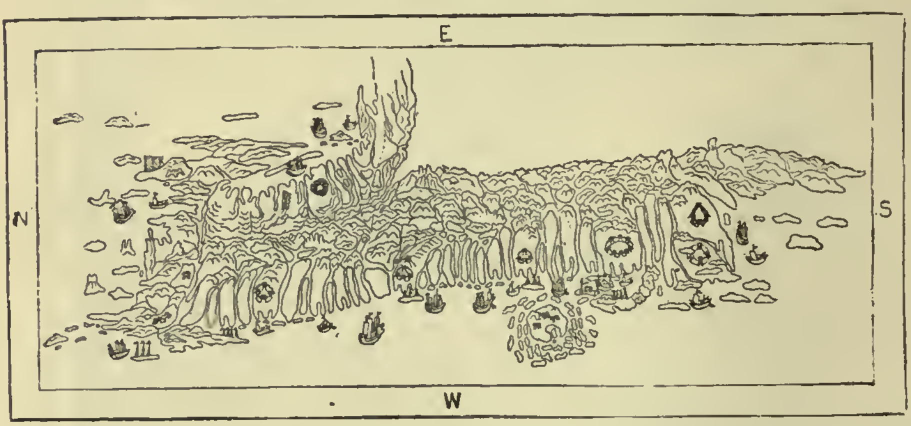
Fig. 135.—Kelung.
Scale 1 : 75,000.

groups, including the principal island and the capital of the whole archipelago. San-nan, or Saki-sima—that is, the southern group—represented on old Chinese maps as forming part of Formosa, is in fact connected with it by a number of reefs and islets. At present their only importance for the Chinese consists in their position as an advanced bulwark of Formosa towards Japan. Being of small

extent and very mountainous, they are thinly peopled by a few tribes, some of whom, like those of Yonakuni, are still in the savage state.

Towards its southern extremity the only geographical dependence of Formosa is the hilly island of Betel Tobago. But in the Fokien Strait, on the west side, the Pescadores (Panghu) group possesses considerable importance as a shipping station and entrepôt between Formosa and the mainland. The inhabitants, estimated at about 180,000, are occupied with fishing and agriculture. But the yield of rice and millet being insufficient for their wants, they depend partly on Formosa for their sustenance. Here the fierce winter gales sometimes blow

Fig. 136.—Grand Lu-chew, according to an old Chinese Map.



down or tear up the trees by the roots. The village of *Makung* is the capital of this group.

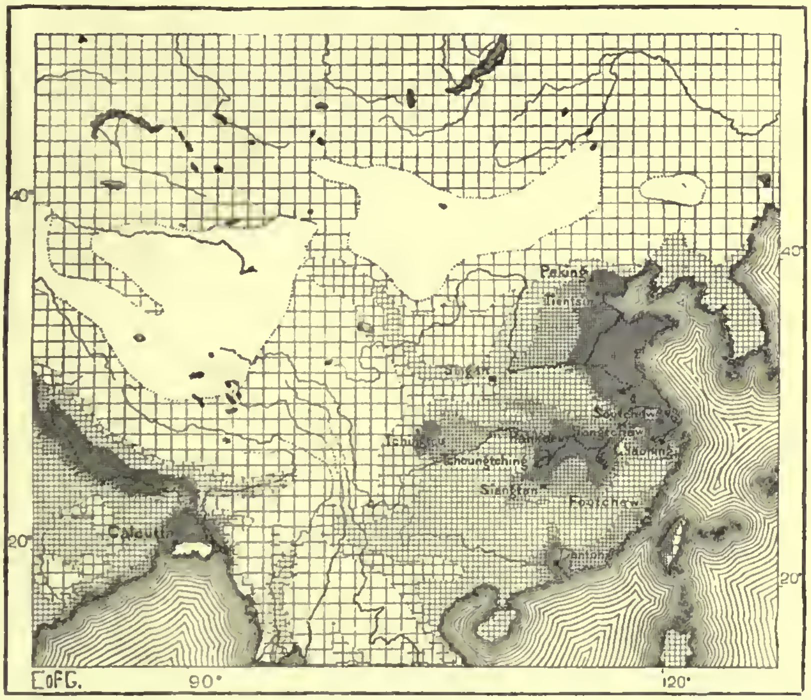
MATERIAL AND SOCIAL CONDITION OF CHINA.

After the tremendous losses attending the civil wars and other disasters, by which the country has been wasted since the middle of the present century, the population has again entered on a period of increase. Celibacy outside the monasteries is almost unknown in China, where all marry young, and where the average number of children is greater than elsewhere. "There are three sins against filial piety," says Mengtze, "and of the three the greatest is to leave no posterity." Celibacy is even forbidden, and the mandarins have the right to compel men after their thirtieth, and women after their twentieth, year to get married. The population would double in about twenty years but for the civil wars, massacres, and famines, and the universal peace now prevailing has certainly already added tens of millions to the population. The increase is, moreover, largely due to the migrations of the natives of Sechuen, Fokien, and Shansi; that is, of the most industrious and enterprising citizens of the Middle Kingdom.

The actual density of the population can only be surmised from old estimates, whose real value has never been clearly determined. Nevertheless it is certain that in this respect China cannot be compared with Western Europe, parts of the

United States, and even of Australia. There are doubtless many large cities, such as Canton, Hankow, Changchew, Fuchew, Singan, Tientsin, and Peking; but even these only take the second rank compared with London, or even with Paris. While the urban exceeds the rural population in manufacturing countries, the reverse is the case in China, still mainly an agricultural region. Nor can its political centralization be compared with that of most European states, the want of

Fig. 137.—Density of the Chinese Population in 1842.
Scale 1 : 50,000,000.



Per Square Kilomètre.

0 Inhab. 0 to 10. 10 to 20. 20 to 100. 100 to 200. 200 and upwards.

■ Towns with over 1,000,000 Inhabitants. • Towns with over 500,000 Inhabitants.

1,200 Miles.

communication preventing the great emporiums from developing such a vast trade as that enjoyed by the leading cities of the West.

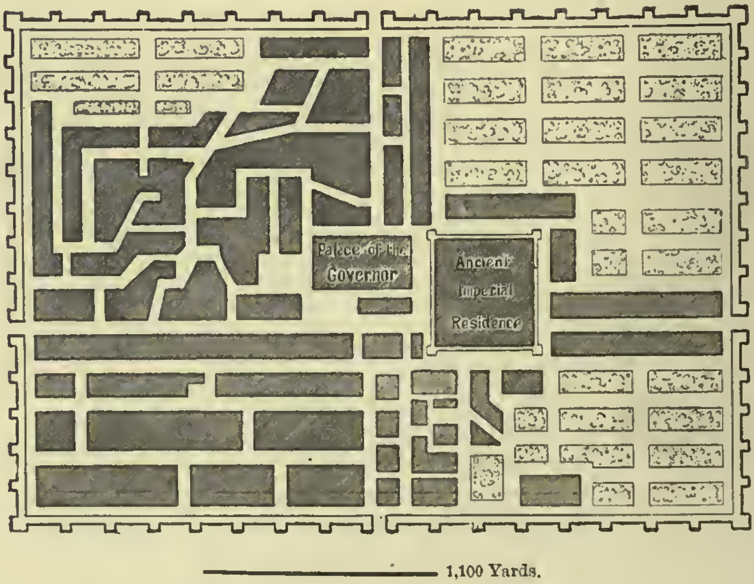
The Chinese Towns.

Speaking generally, the Chinese towns, of which the ancient Singan-fu may be taken as the type, belong to a different period of evolution from those of Europe. Their quadrangular enclosures of lofty castellated walls still attest the frequent recurrence of civil wars, while the inner city, lying within a second enclosure, recalls the Manchu conquest. On the least alarm the four or eight gates of the city are closed, and the towers occupied by armed men. The Manchu quarter is in the

same way furnished with every means of defence, and may in a moment be cut off from the rest of the city. This quarter includes the *Yamun* (*Yamen*)—that is, the seat of the administration—with its courts and offices, besides gardens and parks, sometimes of considerable extent. But although the Chinese quarter is much more animated, the trading classes still prefer the open suburbs beyond the outer walls, where they are free from the police and military regulations, and where access and egress are permitted throughout the night. These suburbs, often stretching for miles along the roads and canals, become themselves real towns, and thus is social life gradually developed. During the late troubles most of these suburbs completely disappeared, but the people soon returned to the old sites, and many of their environs have already become more important than the cities themselves. The

Fig. 138.—SINGAN-FU.

Scale 1 : 40,000.



houses—mere frames of light wood and bamboo, with paper adornments—are soon rebuilt; nor are monumental piles anywhere found, such as those met with in European cities. Hence earthquakes are comparatively harmless, while fires spread rapidly amid these flimsy structures. On this account the southern gate of the city is usually closed in summer, "to keep out the fire-god."

The houses of the rich are generally very clean, and often transformed by flowering plants to veritable conservatories; but the towns are, as a rule, indescribably filthy, in this respect forming a striking contrast to the well-kept fields. Sanitary arrangements can scarcely be said to exist. Hence epidemics, and especially small-pox, are far more frequent and fatal than in Europe; while elephantiasis, leprosy, and other endemics, due mainly to unclean habits, commit fearful ravages on the seaboard, in the southern provinces and elsewhere. Pro-

bably nine-tenths of the whole population are affected by cutaneous diseases, which are largely due to the pestilential exhalations from the rice grounds. Yet the Chinese easily resist the baneful influences of climate, and adapt themselves more readily than others to the extreme variations of temperature, humidity, and elevation of the land. A remarkable fact in Chinese ethnography is the importance attached to family names, which may be said to constitute close blood relationship.

Fig. 139.—Irrigating Pump, South China.

Hence alliances between men and women bearing the same patronymic are strictly forbidden. The whole nation has thus come to be divided into 150 distinct groups, which can intermarry indirectly only through the female line.

Agriculture.

The fertile soil of China has been under cultivation for thousands of years without showing any signs of exhaustion. It not only still suffices to support all

the inhabitants of the empire, but also yields considerable supplies for the export trade. Without the chemical knowledge and perfected implements of Europeans, the Chinese peasant has gradually become acquainted with the quality of the land and the requirements of the cultivated plants. He understands the necessary rotation of crops on the same soil; regulates the due proportion of lime, phosphates, ashes, animal and vegetable remains, and other manures; and supplements the rudeness of his instruments with manual skill. He carefully weeds the ground, and irrigates it by a thousand different contrivances, all kinds of pumps and

Fig. 140.—Relative Importance of the Crops in the Chinese Provinces.

Scale 1 : 30,000,000.

hydraulic wheels, worked by the hand, animals, or the wind. The system of tillage thus resembles market gardening rather than the broad methods of cultivation common in Europe. In the fertile plains, especially about Shanghai, a single acre suffices for the support of seven or eight persons, and before the country was thrown open to foreign trade it yielded sufficient for all the wants of the people. There are, moreover, vast tracts still uncultivated, and according to the official returns for the beginning of this century, while the land under tillage amounted to 125,000,000 acres, Shantung was the only province where more than half of the soil was actually cultivated.

Liebig has well pointed out the remarkable contrast presented by Chinese husbandry to that of some other countries, where the soil has already been exhausted. Palestine, now so arid, at one time "flowed with milk and honey." Central Italy has also become impoverished, and how many other regions have been reduced to wildernesses by ignorant and wasteful systems! Even in the United States many formerly productive tracts are now barren, while England, France, and Germany are already obliged to import much of their supplies, as well as the guano and other fertilising substances required to restore its productive energy to the exhausted land. But in China, apart altogether from the "Yellow Lands," which need no manure, the arable regions have maintained their fecundity for over four thousand years, entirely through the thoughtful care of the peasantry in restoring to the soil under another form all that the crops have taken from it.

At the same time "the ploughing of the Chinese is very poor and unscientific. They scarcely do more than scratch the surface of the ground; and instead of the straight lines so dear to the eye of an English farmer, the ridges and furrows in China are as crooked as serpents. Hence it is difficult to understand how the Chinese have acquired such a high reputation amongst Europeans for *scientific* farming. The real secret of their success lies in the care they take that nothing is wasted. In many districts they use no other manure than the sewage of the towns, but not one particle of this is lost." (Gill, i. 114.)

Of the crops the most important is rice, which is the staple food throughout the central and southern provinces, and which occupies at least one-eighth of all the land under cultivation. There are several varieties, one of which is suitable for the higher grounds, where it is grown on terraces along the slopes of the hills. North of the Hoang-ho, wheat, millet, and sorgho are the prevailing cereals, and to each house is generally attached a kitchen garden, yielding all the European and other vegetables according to the climate. But the forests have nearly everywhere been sacrificed to tillage to such an extent that the material for coffins has now to be imported from abroad. The only fuel consists of dried herbs, straw, roots, and other vegetable refuse economized with the greatest care. In the eastern plains, especially north of the Yang-tze, no large growths are met except bamboo thickets, orchards, rows of trees between the fields, and here and there clumps of trees about the pagodas and cemeteries. The whole country would be covered by these graveyards but for the old practice of ploughing them up at the accession of every new dynasty.

After a careful investigation of the subject in several parts of the country, G. W. Cooke concludes that on the whole Europe has nothing to learn from China in the art of agriculture. It is true that the Chinese have no summer fallow lands; but, on the other hand, they have no stiff clays. They have no couch-grass; no thistles contending for the full possession of the land, as we see in many parts of Wales and Ireland; no uninvited poppies; no straggling stalky crops, the poverty-stricken covering of an exhausted soil. At rare intervals we see a large, richly coloured coxcomb flaunting himself among the cotton. But, generally speaking, there is not a leaf above the ground which does not appertain to the crop

to which the field is appropriated. In the districts where rice and cotton are the staple products these crops often extend in unbroken breadth over tracts of thousands of acres. The peas, and wheat, and indigo, and turnips, and bringalls lie in patches round the villages. The ground is not only clean, but the soil is so exquisitely pulverised that after a week's rain the traveller will sometimes look about in vain for a clod to throw into a pond to startle the water-fowl.*

Pasture lands are as scarce as the forests in China. The land is too valuable to be devoted to stock-breeding, for a tract required to support a million oxen would yield cereals and vegetables enough for 12,000,000 human beings. But for thousands of years both the ox and horse have been domesticated. The mythical Emperor Fo-hi, said to have flourished fifty-three centuries ago, is supposed to have been the first to domesticate the six essentially tame animals—horse, ox, pig, dog, sheep, and fowls. But the larger animals, including the buffalo, are little used except for carriage. They are carefully tended, protected from the cold with warm cloths, and from the rough roads with straw shoes. Owing to the Buddhist precept and his natural attachment to his companion in labour, the peasant eats the flesh of these animals with great reluctance. The penal code even forbids their slaughter without express permission. Nevertheless, apart from the numerous vegetarian societies, which also abstain from wine, garlic, and onions, the Chinese add a little meat to their ordinary diet. They are partial especially to the flesh of the hog, of which there are several varieties. On the rivers and reservoirs flocks of three or four thousand ducks are also met, which are looked after either by children in boats, or even by cocks, which are taught to keep them together by crowing and flapping their wings. A large traffic is done in these water-fowl, which are dried, like botanical specimens, between two boards, and in this state forwarded to the most distant provinces. In the southern provinces, and especially in Hunan, a particular breed of dogs, and even rats and mice, are prepared in the same way. The locust, silkworm, and snake enter into the diet of the poor, while sharks' fins and swallows' nests are served on the tables of the rich. Another delicacy consists of ducks' eggs steeped while fresh in a solution of salt and lime. Penetrating through the shell, the lime turns the contents quite black, and imparts to the egg a decided flavour. In this state it is encased in clay and baked, after which it will keep for a long time, the white being reduced to the consistency of a jelly, while the yolk becomes about as firm as a hard-boiled egg. After the death of Commissioner Yeh in Calcutta, where he had been detained a State prisoner, several large boxes of eggs prepared in this way were found amongst his effects.

The Chinese have discovered a means of increasing the fecundity of their poultry, whereby the relative production of eggs is much greater than in Europe. The hen is prevented from hatching by being taught to bathe, and artificial incubation has been practised long before the art was known in the West. Pigeons are protected from birds of prey by means of a bamboo whistle no thicker than a sheet of paper inserted between the wings. Marvellous devices have been intro-

* "China in 1857-8," p. 247.

duced for the capture of fish, which are taken without nets or traps, and great skill is displayed in rearing and propagating both salt and fresh-water species. The *samli*, a kind of shad, is produced almost exclusively by artificial means, and sent in large earthenware vessels, far and wide, in every state of development.

The Tea Trade.

Of the natural products, tea supplies the largest element in the foreign export trade. The quantity consumed by the inhabitants, certainly more than in all the rest of the world together, can only be approximately estimated. Yet its use, although introduced some twelve or fifteen centuries ago, is not yet universal in the empire. In the northern provinces the rich alone can afford to indulge in the tea from the Yang-tze basin, others remaining satisfied with various preparations in which the precious leaf forms but a small part. Even in the tea-growing provinces the poorer classes are obliged to replace it by infusions of the willow and other leaves gathered in the thickets. In certain districts this industry has even acquired some commercial importance, thanks to the fraudulent practice of the Hankow, Shanghai, and Amoy merchants, who use these leaves in adulterating the teas destined for the European market.

The so-called "brick tea" is prepared especially for the Tibetan and Mongolian markets. In the Russian factory at Hankow "bricks are made of green and black tea, but always from the commonest and cheapest; in fact, for the black tea the dust and sweepings of the establishment are used. The tea-dust is first collected, and if it is not in a sufficiently fine powder, it is beaten with wooden sticks on a hot iron plate. It is then sifted through several sieves to separate the fine, medium, and coarse grains. The tea is next steamed over boiling water, after which it is immediately put into the moulds, the fine dust in the centre, and the coarse grains round the edges. These moulds are like those used for making ordinary clay bricks, but very much stronger, and of less depth, so that the cakes of tea, when they come out, are more like large tiles than bricks.

"The people who drink this tea like it black; wherefore about a teaspoonful of soot is put into each mould, to give it the depth of colouring and gloss that attracts the Mongolian purchasers. The moulds are now put under a powerful press, and the covers wedged tightly down, so that when removed from the press the pressure on the cake is still maintained. After two or three days the wedges are driven out, the bricks are removed from the moulds, and each brick is wrapped up separately in a piece of common white paper. Baskets, which when full weigh 130 lbs., are carefully packed with the bricks, and are sent to Tientsin, whence they find their way all over Mongolia, and up to the borders of Russia.

"I was told that this tea could be sold retail in St. Petersburg with a fair profit at the rate of twenty copecks the pound. The green tea is not made of such fine stuff, but of stalks and leaves. The Mongolians make their infusion by boiling. In this manner they extract all the strength, and as there is no delicate flavour to lose, they do not injure the taste. The manufacturer here told me that the

tea the Russians usually drink in their own country is taken direct to Odessa from Hankow by the Suez Canal, and in answer to an inquiry that I made, he assured me that even before the canal was opened it never passed through London.

"A better price is given by the Russians in Hankow than the English care to pay. This is the real reason why the tea in Russia is superior to any found in London; for caravan tea is a delicacy even amongst the nobles in St. Petersburg." (Gill, i. 176.)

Other Agricultural Produce.

Of the seventy cultivated plants mentioned by explorers, the sugar-cane, cotton, mulberry, wax, tallow, and varnish-tree, bœhmeria nettle, and especially the bamboo, are economically of the first importance. In the south, the orange, peach, and mulberry are the most productive fruit trees. Opium, although officially interdicted, is cultivated in nearly all the provinces of the empire, and especially in Hupeh, Sechuen, and Yunnan. During the American War cotton was largely grown in the Lower Yang-tze region, to the detriment of other plants, which have since recovered their ground.

Of all pursuits, agriculture holds in China the foremost place. The Emperor himself is regarded as the first husbandman in the "Great and Pure Empire," and till recently he was bound, towards the end of March, to plough three furrows, dressed as a peasant. The work was continued by the imperial princes, great mandarins, and others invited to the ceremony, and the corn thus grown was presented the following year to the God of Heaven, as the offering of the whole nation. At the same time, the Emperor is in theory only the proprietor of the land, which belongs really to the peasant and his posterity as an absolute freehold.

Land Tenure—The Chinese Commune.

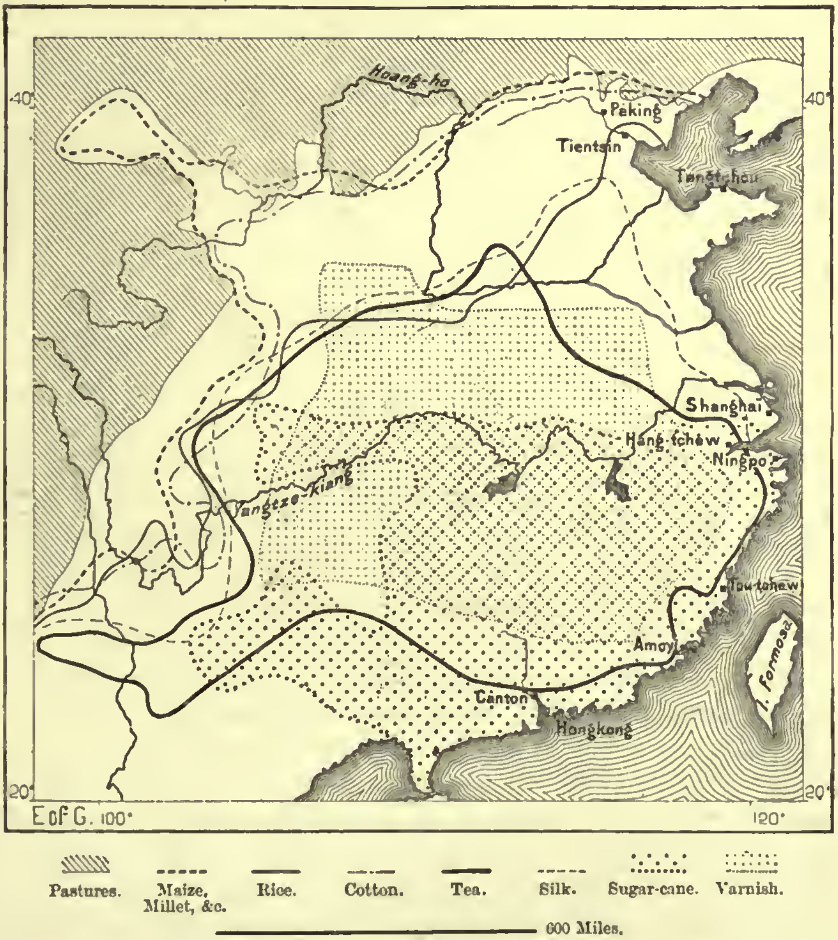
Notwithstanding the pretended immutability of the Chinese people, the possession of the soil has undergone almost more frequent changes amongst them than elsewhere. In the first historic period the land was the common property of the "Hundred Families," all able-bodied adults between their twentieth and sixtieth year having a direct right to a share in the soil. Nevertheless the idea of private property was gradually developed, to the advantage of the emperor and grandees, and twelve hundred years before the present era the land was already divided into appanages and fiefs, as happened later on in West Europe. Still the forests, pastures, or open spaces remained undivided for every group of eight families, and the Chinese commune was, on the whole, organized in much the same manner as the modern *mir* of Great Russia. Some traces of this system still survive, not only in China, but in Korea and some other countries affected by Chinese influences.

Towards the middle of the fourth century before the vulgar era another change took place. Agriculturists were allowed to settle on any vacant spaces, and set up landmarks, regardless of the communal limits. Thus the mir was dissolved about the same time that the feudal system disappeared, and the peasantry became

proprietors, with the right of selling or bequeathing their possessions. Thus was accomplished a transformation some two thousand years ago in China, which political economists foresee must take place in Russia at no distant date. But the consequences of this dissolution of the communal group soon followed. All those who had been enriched by trade, industry, imperial favour, or other circumstances, bought up the land at the expense of the peasantry; large estates were developed; and the small holders, being gradually dispossessed, became at last, for the most

Fig. 141.—Chief Crops of China.

Scale 1 : 24,000,000.



part, slaves of the wealthy classes. Those considered themselves fortunate who were allowed to continue as farmers, to rent the lands of their forefathers. Misery became widespread, frequent outbreaks took place, the State itself was impoverished, and great difficulty was experienced in collecting the taxes. An incessant struggle took place between the partisans of the new régime and the old communal system, and for over one thousand years the political history of the empire resolved itself into the history of the agrarian question. In the ninth year of the new era the

minister Wangmang, after seizing the throne, declared the whole land henceforth imperial property. "No subject shall keep more than one tsin (about twelve acres), or possess more than eight man slaves. The sale of land is forbidden, so that all may keep what yields them bread. All excess of land in the hands of any one reverts to the Crown, and shall be distributed to the communes according to their needs. Whoever questions the wisdom of these measures shall be banished, whoever resists them shall be put to death." Yet a few years later on the magnates had recovered their domains, and the attempt to reconstitute the old communal system again failed. "Not Yu or Shun himself," said a contemporary philosopher, "could now restore it. All things change; the streams shift their courses, and what time has effaced disappears for ever."

After many social convulsions and changes of dynasties, the Chinese political economists, abandoning the old conception of communal property, attempted to introduce a new system. No similar revolution was ever elsewhere essayed by the governing classes for the transformation of the whole social fabric. Wanganche, having become the friend and adviser of the Emperor Chentsung, boldly set about the destruction of the old order of things. In 1069 he issued a decree abolishing all individual property. The State became sole owner, and undertook to distribute equally the produce of the soil amongst the people. Wealth and poverty were alike suppressed, labour and sustenance being secured to all on an equal footing. The industries were placed under State control, and for a period of five years capitalists were required to hand over their capital to the Government. Notwithstanding the opposition of the mandarins and the old feudatory lords, Wanganche succeeded in peacefully maintaining this imperial communism for fifteen years. But a change of rulers sufficed to overthrow the new régime, which met the views neither of the people nor of the great, and which had, moreover, created a class of inquisitors, who had become the true owners of the land.

Under the Mongol rule properties changed hands abruptly, and a new feudal system arose, based on the right of conquest. The imperial grandees seized the great fiefs, comprising thousands and tens of thousands of acres, and every private soldier received an estate all to himself. Being at the same time anxious to extend the pasture lands for their horses, the Mongolians conceived the strange idea of converting the land under tillage into grassy steppes, and driving the Chinese peasantry southwards. The cultivation of the plains of Peking was officially forbidden, but the attempt completely failed. Instead of driving the natives beyond the Hoang-ho, the Mongolians themselves were compelled to withdraw, with their families and herds, beyond the Great Wall.

The régime at present prevailing in China is that of small holdings. But under the direction of the elders the land often remains undivided in the hands of all the members of a family, or even of a village. Thus are traces everywhere preserved of the old communal system. Large capitals are invested chiefly in trade and the industries, while the land in certain provinces remains almost entirely in the hands of the cultivators. Nevertheless there still remain many vast domains rented to small farmers and others, who share the summer crops with the

landlord, and keep the winter ones for themselves. They supply the live stock, manure, and implements, while the owner pays the land tax, which is not a heavy charge. In the fertile coast lands, where the soil is more divided, an estate of 15 acres is considered a large domain, and the holdings do not probably exceed 3 acres on the average. The head of the family may sell or mortgage his property, but he must first offer it to the next of kin, and so on, according to the order of blood relationship. At his death it must be divided in equal shares amongst all his sons. He is compelled by law to keep it in good condition, land lying fallow for three years being forfeited and assigned to a fresh occupant. Even the head of the commune is made responsible for the state of the arable tracts, being subject to twenty blows of a bamboo in case of neglect or slovenly tillage. The right of settling on waste spaces belongs to all, nothing being required beyond an intimation to the authorities, with a petition for exemption from the *impost*, which is usually granted for a certain term. The Government itself founds military or penal colonies in remote districts, and especially in Kansu and Zungaria. The Crown lands, relatively of small extent, lie mostly beyond China proper, in Mongolia, near the Great Wall, and in Manchuria, home of the reigning dynasty.* The plantations round the temples, lands set apart for educational purposes or bequeathed to hospitals and other public foundations, and lastly, portions of the marshy grounds and the foreshore on the coast and estuaries, are all administered by the commune.

Industries.

The Chinese industries are many centuries older than those of the West, and some of the more important discoveries made in Europe towards the close of the Middle Ages had long been anticipated in the extreme East. Marco Polo and the early European explorers speak with admiration of the woven goods, chased metals, and other products of the "Manzi." But the first trustworthy accounts of the native manufactures was not received in Europe till the close of the seventeenth century. Several manufacturing processes were revealed by the missionaries, and the work has been completed during the present century by the translation of numerous technical treatises. The ready wit and manual skill of the Chinese artisans are not merely prerogatives of the race, but are also due to the fact that our minute division of labour has not yet been introduced amongst them. Every artistic object is the work of one artist, who designs, models, and paints it. In many provinces the peasantry themselves are craftsmen, spinning and weaving their cottons and linens. They excel especially in wicker-work, and so closely plaited are their baskets, that they serve, like wooden or metal vessels, to hold all kinds of liquids. The *Hoa-hwei*, or "embroiderers," have also been at all times renowned for the skill and perfection of their workmanship. "On fabrics of

* Crown lands in 1831:—

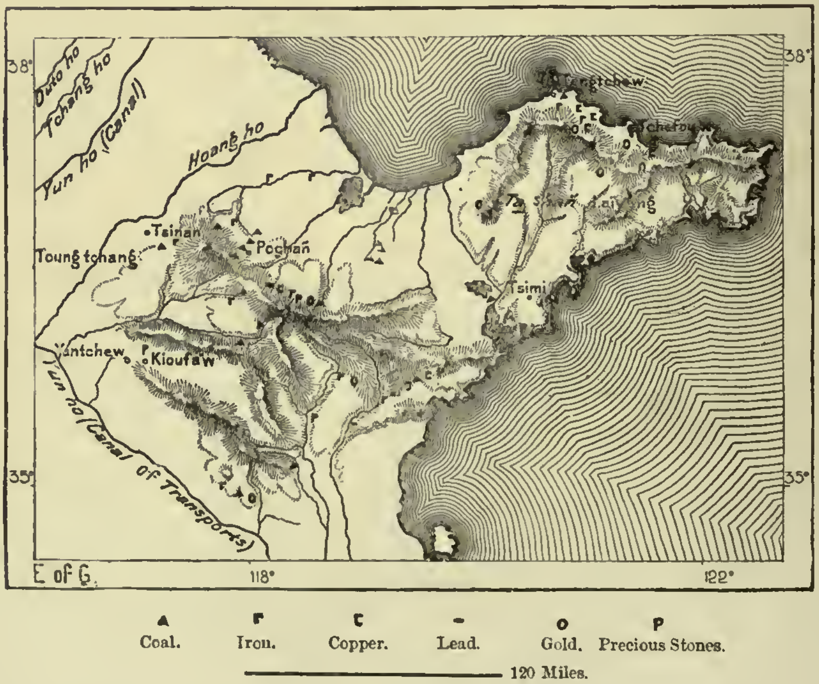
Appanages of the Imperial Family	750,000 acres.
Lands of the Eight Banners	2,152,000 „
Lands of Temples, Schools, and Hospitals	327,000 „
Marshes and Foreshore on the Coast	1,567,000 „
Total	4,796,000 „

marvellous texture and dyed with inimitable shades the Chinese embroider with flat silk figures of the natural size, complicated scenes, ornaments, birds, and flowers, with unequalled truthfulness, elegance, and freshness. In the midst of this rich needle picture rise golden dragons, worked either in *couchure* or low relief, often ornamented with spangles and lama." *

Nevertheless, except in a few cases, the Chinese can boast of no superiority over the "Western Barbarians." They even condescend to imitate European wares, and the implements, ornaments, clocks and watches, and other objects made in Canton and Fachan, and thence exported to all parts of the empire, are mostly copied from specimens introduced from the West. Of the old local industries, some have remained unmodified for four thousand years, and these may disappear or be replaced, but cannot now be changed. In some cases the very processes have

Fig. 142.—Mines of Shantung.

Scale 1 : 6,000,000.



already been entirely lost, and the best hands now fail to produce inlaid bronzes, enamels, or porcelain vases at all comparable to the old specimens preserved in the museums. In the art of dyeing, especially from vegetable saps, the Chinese are still our masters, and they possess several colours elsewhere unknown.

Mineral Resources.—Metal Work—Bronzes.

The country abounds in metals, salt, and coal. Great skill is shown in working the saline springs, and in obtaining the salt, either by solar heat, artificial means,

* Jacquemart's "History of Furniture," p. 154.

or by the gases of the fire-pits, as in Sechuen. But the rudest appliances are still used in coal mining, bamboo tubes and ladders replacing the complicated machinery of European engineers. Yet the annual output amounts to several million tons, and China now takes the sixth place amongst the coal-producing countries. The Sechuen coal-fields cover an area of at least 100,000 square miles. Those of Hunan are also very extensive; but the most important, if not in extent, at least in facility of access, are those of South Shansi. Here railways might easily be constructed from the plains right into the mines. At the present rate of consumption, South Shansi also might supply sufficient anthracite to the whole world for thousands of years.

Mining operations are still often interfered with for superstitious reasons, and it was reported early in the year 1882 that the coal mines of the province of Pechili had been closed by the Government on the ground that the works were displeasing to the great earth dragon. The working of these mines was wholly a native enterprise, foreign machinery was imported in large quantities, and for a time all seemed going on well. A canal between the mines and Tientsin was nearly completed, and it was calculated that 250 tons of fine coal could be forwarded daily to the latter port. It was stated that 5,000 tons were ready at the pit's mouth for conveyance as soon as the canal was opened. With proper appliances it was believed that about 1,000 tons a day could be raised for many years from the present pits, while as many as fifty collieries of equal productiveness might be opened in the Kaïping district. Then came the news that the works had been everywhere suddenly stopped by the Peking authorities. In a memorial presented to the Emperor by the public censor it was complained that the long galleries in the mines and the smoke of the foreign machinery disturbed the repose of the earth dragon, who in his turn disturbed the spirit of the Empress, who had died somo months previously, and had been buried about a hundred miles off. The angry spirit of the departed princess took prompt vengeance by afflicting the members of the imperial household with measles, which affliction was thus distinctly traceable to the Kaïping coal mines. Hence the report that the works had been stopped. But later information showed that this report was premature, and that the collieries had never been directly interfered with.*

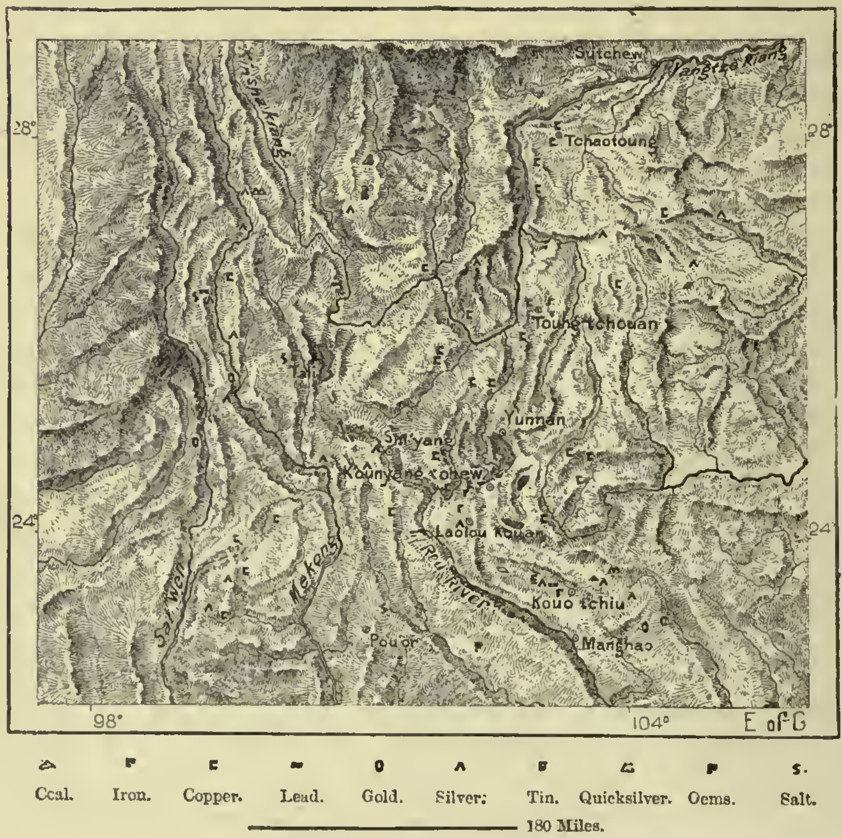
In Formosa, Pechili, Manchuria, and some other districts, European methods have already been introduced both in the coal and iron mines, and for reducing the iron ores, although in the latter case the local processes differ little from those of foreign metallurgists. The native steel is always preferred even to the English, and great skill is displayed in the preparation of copper, lead, tin, zinc, arsenic, and silver and gold alloys. The quality and colour of the bronzes are unrivalled, and the "male" and "female" gongs yield the most exquisitely modulated tones. From the technical point of view many of the Chinese bronzes are very remarkable. Enormous figures cast in several pieces are put together by ingenious processes which insure their solidity, while smaller articles are modelled with a perfection

* *Nature*, June 8th, 1882.

that has never been surpassed, except perhaps in Japan. Others, again, are chased with a finish worthy of the goldsmith's art, and evidently executed with instruments specially made for hollowing out the metal and cutting into the intricate folds of the draperies. Amongst the more curious bronze wares are the gigantic symbolic birds used as perfume-burners or candelabra, the large tripods with pierced covers surmounted by the imperial dragon or animals of happy omen, and

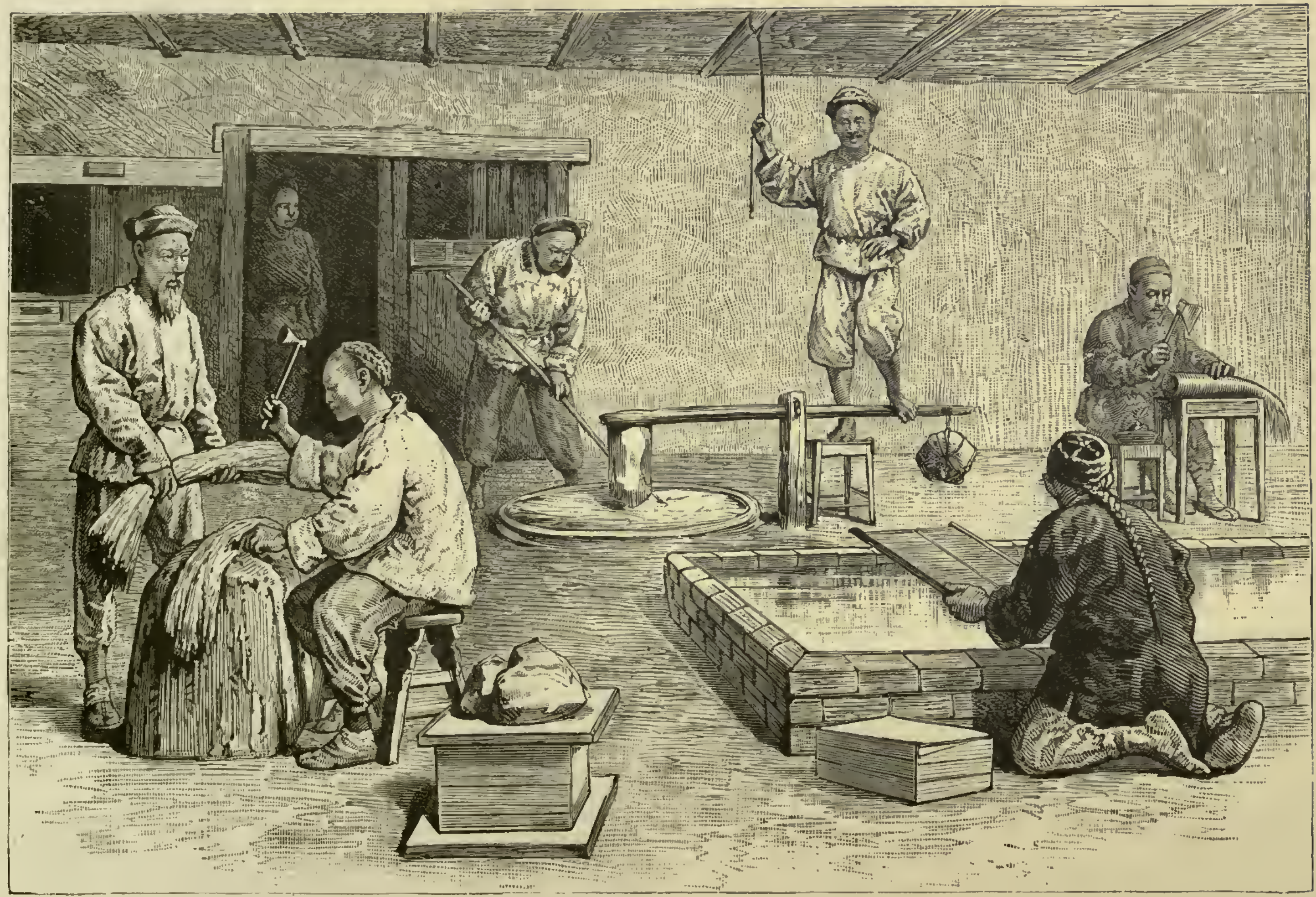
Fig. 143.—Mines of Yunnan.

Scale 1 : 8,500,000.



the many-storied pagodas, their projecting roofs ornamented with bells, and sheltering the household lares.

Thanks to the possession of the raw material, China, like Japan, still maintains its pre-eminence in the production of lacquer-ware as well as of ink, while marvellous skill is betrayed in the carving of wood, ivory, and hard stones. Inventors of paper, the Chinese still prepare several varieties unknown in Europe, although they themselves prefer those of Korea and Japan. In the year 153 of the vulgar era Tsaïlun first replaced bamboo tablets by paper made from bark, hemp, old linen rags, and fishing nets. Since that time, bamboo sprouts, seaweed, rattan, the fibre of the *Broussonetia papyrifera*, silkworm cocoons, and other substances are used in its manufacture.



PAPER-MILL, CHINA.

Printing.

The Chinese also anticipated Europeans in the invention of printing. Towards the end of the sixth century the art is spoken of as already long practised, and if the Persian historians had been studied in the West, it would have been known here a hundred and fifty years sooner, for it is clearly explained in a work by Rashid-ed-dîn, composed about the year 1310. Not only were they acquainted with the process of printing from wooden blocks, but they also practised stone and copper engraving, and towards the middle of the eleventh century movable terra-cotta types were invented by a blacksmith. But the immense number of characters required in Chinese writing has hitherto prevented the adoption of this method, except for popular works and journals, for which a limited number of signs suffices. Hence blocks of pear-wood, carved with the graver in intaglio, or copper plates in relief, still continue to be employed. Nevertheless admirable editions have been published from movable types. Such is the collection of 6,000 old works edited by the Emperor Kang-hi, and for which 250,000 movable copper types had to be cut; such are also the works issued by the Imperial Library, the elegant characters of which are known as the "collected pearls."

The Labour Market.

The Chinese artisans are in general paid at a much lower rate than those of Europe and the New World. In Peking, Shanghai, Canton, and Hankow it varies from 5d. to 10d. a day; so that, notwithstanding the cheaper price of food, few except the silk-weavers, who are better paid, have even a sufficient diet, living mostly on boiled rice, cabbage, and occasionally a little fish. Yet these pale-faced, feeble-looking labourers have really great muscular strength, and in the central and southern provinces they transport nearly all the merchandise not forwarded by water. Like the other social classes, they have organized extensive unions, which often arrange strikes, as in Europe, to keep up the price of labour, and which have even founded co-operative societies. Thanks to their spirit of solidarity and admirable discipline, they nearly always get the better of the capitalists, and so fully recognised is their power, that in many places the employers even decline the struggle. At the beginning of every industrial season the workmen themselves fix the rate of pay, which is generally faithfully adhered to on both sides. They might easily get possession of the whole industrial plant of the country, but for the fact that the trades unions form so many independent and rival societies. These associations subject apprentices to two or three years of downright slavery; they constitute a sort of aristocracy of labour, weighing heavily on all outsiders, the most fortunate of whom in ordinary times are the professional mendicants. Like the traders and artisans, these mendicants have their recognised unions, with statutes, feasts, and assemblies.

G. W. Cook dwells in forcible language on the evils of co-operation amongst the Chinese, whom he describes as a people essentially addicted to co-operativo

habits. They even combine together for the purpose of robbing, or resisting robbery, and for all manner of fanciful objects. "But these societies have all one tendency—to squeeze the non-members. From the Triad Society, which was at the bottom of the late rebellion, to the Tailors' Union at Hong Kong, the rules and regulations of which have been published in the *North China Herald*, all have the same practical object in view. The 'Tinte Brotherhood,' the 'Triads,' the 'Heaven and Earth Society,' the 'Queen of Heaven's Company,' the 'Flood Family,' the 'Pure Tea Set,' are all obnoxious to the general description given in a memorial published in the *Peking Gazette* containing the following specific charges:—'They carry off persons in order to extort ransoms for them; they falsely assume the characters of police officers; they build false boats professedly to guard the grain-fields, and into these they put from ten to twenty men, who cruise along the

Fig. 144.—Portage in Chekiang.

rivers, violently plundering the boats of travellers, or forcibly carrying off the wives and daughters of the tanka boat people. The inhabitants of the villages and hamlets fear these robbers as they would tigers, and do not offer them any resistance. The husbandman must pay these robbers a charge, else as soon as his crop is ripe it is plundered, and the whole field laid bare. In the precincts of the metropolis they set fire to places during the night, that under pretence of saving and defending, they may plunder and carry off.'" *

Inland and Foreign Trade.

The value of the commerce of China can scarcely be even approximately estimated, except perhaps for salt and the other produce burdened by Government

* *Op. cit.* p. 191.

monopolies. In the neighbourhood of the great cities the rivers and canals are covered with interminable lines of junks, while many of the more frequented portages and mountain passes at certain periods resemble busy market towns. The boatmen and porters engaged in the inland traffic must certainly amount to several millions.

Thanks to the great variety and abundance of its products, China has hitherto scarcely felt the need of a foreign trade. But so far from refusing to deal with strangers, she formerly gave free access to the Arabs, Malays, Annamese, Siamese, and even the Portuguese, who were well received when they first appeared in the Canton River in 1516. Soon, however, the Europeans began to assume the air of conquerors, and scarcely a year passed without scenes of bloodshed, fully justifying the title of "Foreign Barbarians" applied by the natives to the new arrivals. They also began to quarrel among themselves, and looking upon all of them as members of one nation, the Chinese asked in amazement why they thus plundered and murdered each other. At last the seaports were closed against them, or opened only on humiliating and burdensome conditions. "The barbarians are like beasts, and are not to be governed by the same principles as civilised beings." Such was the language of a contemporary official document. "To attempt to guide them by the great maxims of reason could only end in disorder. The arbitrary plan is the only true method, and best means of governing the barbarians."

The Opium Question.

Then followed the opium trade, swelling the list of complaints against the foreigner. The use of this drug did not begin to spread till the close of the last century, when it was still imported as a simple medicine. In 1800 an imperial edict forbade the people to exchange their money for the "vile stuff;" but it was too late, and the poison continued to spread rapidly. The East India Company soon found millions of accomplices in the opium smokers, and amongst them were most of the mandarins officially charged to put an end to the traffic. The contraband trade increased from year to year, to the serious loss of the imperial treasury, and as the exports of tea and silk remained greatly inferior to the importation of opium, the country began to be drained of its specie, "swallowed up in the insatiable abysses of the lands beyond the seas." At last the Government had recourse to force. All strangers settled in Canton, 275 altogether, were imprisoned, and the British Commissioner had to purchase his liberty and that of his fellow-countrymen by the surrender of over 20,000 chests of opium, valued at about £2,000,000, and consigned to destruction by the Viceroy Lin. This was the signal for the "Opium War" of 1841-2, during which the English successively seized the Chusan Archipelago, the Canton River forts, Ningpo, and Ching-kiang. Under the very walls of Nanking a treaty was dictated to China, abolishing the monopoly of the twelve *hong*, ceding to Great Britain the island of Hong Kong, besides a heavy war indemnity, and throwing open to foreign trade the five ports of Canton, Amoy, Fuchew, Ningpo, and Shanghai.

But the hard conditions of this treaty were not observed. Strangers were again excluded from Canton, and certain monopolies were re-established, while the English, French, and Americans clamoured on their part for fresh concessions. A second war broke out in 1857, in which the French joined the English. Canton

Fig. 145.—Chinese Treaty Ports.

Scale 1 : 20,000,000.

15 Miles.

was again taken, and the European fleets entered the Peï-ho River, when peace was hastily concluded in 1858 at Tientsin. But hostilities again broke out the next year. The allied forces stormed the forts of Takow, defeated the Chinese army in a pitched battle, and encamped under the walls of Peking. In virtue of the treaty of 1860 new ports were thrown open, and in 1878 their number was increased,

as an expiation for the murder of Margary. At present there are as many as nineteen treaty ports, besides concessions granted "for ninety-nine years" to foreigners, as sites for warehouses and residences. In the north and north-west Russia also has her consuls and entrepôts at Chuguchak, Kobdo, Uliasutai, and Urga, with the free use of the postal route from Kiakhta, through Kalgan and Tungchew, to Tientsin.

The Treaty Ports and Foreign Exchanges.

The treaty ports are situated at intervals along the seaboard from Pakhoï, on the Gulf of Tonking, to Ying-tze, at the mouth of the Liao-he. There are also European settlements in Hainan and Formosa, so that from the frontiers of Indo-China to Korea the produce of the empire may now be directly exported to all the European markets. Amongst these ports, Canton, lying nearest to India and Europe, has naturally retained a considerable share of the foreign exchanges. Tientsin also, situated at the northern extremity of the empire, has acquired exceptional importance. But the two chief marts occupy more central positions—Shanghai, near the Yang-tze estuary, and Hankow, on the great river itself.

The foreign exchanges of China have increased tenfold since the opening of the treaty ports, and according to the official returns they now exceed £46,000,000. With the local and coasting trade, the full value of the trade of the empire is estimated at over £120,000,000, or some 6s. or 7s. a head, an insignificant sum compared with that of some other countries. The shipping has kept pace with the increase of traffic, only sailing vessels have now been almost entirely superseded by steamers. Regular lines of steamers ply from port to port along the seaboard, and in the Yang-tze, as far as Ichang, below the rapids.

Till recently nearly the whole of the foreign trade was carried under foreign flags, and fully three-fourths still fall to the share of Great Britain and her colonies. But while the Americans, French, and Germans are retiring from the field, the natives are yearly taking a greater part in the carrying trade. More frugal and cautious than their Western rivals, animated by a greater spirit of clanship, possessing agents in most foreign countries, accustomed to the language of trade from their infancy, initiated into the secrets of the money market, the Chinese have already monopolized the trade of several treaty ports. The national flag has even begun to appear in distant waters, and a large Chinese steamer entered the port of London for the first time in 1881, with a cargo of tea from Canton.

Staples of Trade—Silk—Tea—Rice—Opium.

Silk and tea are the great staples of the foreign export trade. Before the year 1844 the annual amount of silk exported scarcely exceeded 2,500 lbs.; now it is five or six times greater, while tea was shipped in 1878 to the value of about £9,400,000. Rice is the chief item in the import trade, and thousands of junks are yearly employed in this traffic, which is entirely in the hands of the natives.

Rice is brought chiefly from Siam, French Cochin-China, and Annam. Next to rice, the most important imports are opium and cotton, which were received in 1879 to the value of no less than £11,000,000 and £6,200,000 respectively. Under the present Indian administration, which has inherited this traffic from the East India Company, the sale of opium has increased tenfold in about twenty years. In return for advances made to the Bengal poppy-growers, the Government takes the chest at a fixed price, and sells it at an average profit of about £90, which yields from £6,000,000 to £8,000,000 yearly to the Indian revenue. Hence there is some ground for the charge brought against the British Government of speculating in the vices of the Chinese. At the same time there is scarcely a Government in the world against which a similar charge may not be brought. Which of them is free from the imputation of having encouraged the traffic in tobacco, alcoholic spirits, or other poisons, for financial purposes? The Chinese Government itself raises large sums from the import duty on opium, and tacitly connives at its cultivation in most of the provinces, where the traders and mandarins share between them the profits on the yearly crops of the officially prohibited drug.

At the same time the baneful effects of the use of this narcotic have been strangely exaggerated. Most of the lettered classes use it in moderation without any apparent weakening of their intellect. Those who indulge to excess no doubt yield at last, like drunkards, to convulsive attacks and paralytic strokes. But they are few in number, and seldom found amongst the peasant and labouring classes, who form the heart of the nation.* Most opium smokers are satisfied with a few harmless whiffs in the intervals between their work, and it is noteworthy that the people of Sechuen, who are most addicted to the practice, are specially distinguished by their energy and intelligence. On the whole, opium is probably not a whit more injurious than tobacco, which is far more prevalent in the seaboard and northern provinces. On the other hand, the European vice of drunkenness is almost unknown in China, where you may travel for years without meeting a single intoxicated person.

In "The Truth about Opium" (1882), Mr. W. H. Brereton of Hong Kong, who has made a special study of this question, considers that tobacco is on the whole more injurious than opium smoking. He describes the Chinese as, generally speaking, a strong, healthy, and intelligent people, and says that he has known among them young men, middle-aged men, and men of advanced years who have been opium smokers all their lives, some of them probably excessive smokers. Yet he never observed any symptoms of premature decay in any of them. One old man whom he knew for fifteen years, he describes as a keen man of business, strong in body and mind, who betrayed the practice only in the discoloration of his teeth. That few in any case smoke to excess seems probable from the generally white state of their teeth, of which they are very proud, and which they brush

* According to an official note issued early in 1882 by Mr. Hart, Inspector-General of Chinese Customs, considerably less than one per cent. of the population is addicted to opium smoking, while those who smoke to excess are extremely rare.

two or three times a day. Mr. Brereton, who speaks with kindness and respect of the English missionaries, considers that on the question of opium smoking "the zeal of their house hath eaten them up."

Highways of Communication—Railway Prospects—Telegraphs.

Thanks to steam, the relations of the coast lands with the rest of the world have become much easier and more frequent than formerly. But the inland routes and canals are probably in a worse state than during the Ming dynasty, some three hundred or four hundred years ago. Except in Shantung, Kansu, Sechuen, parts of Honan, and in the neighbourhood of the treaty ports, the old roads are everywhere out of repair, and the bridges in ruins, while in many places mere tracks follow the line of the former highways. In the rice grounds, which cover such a large extent of land, most of the routes consist merely of blocks 2 feet broad, and raised at most 3 or 4 feet above the water. Such of the twenty-one imperial highways as are still in good condition attest the high degree of civilisation reached by the nation during mediæval times, and enable us to understand the admiration with which Marco Polo and other early travellers speak of that epoch. These highways are cut through the spurs of the mountains, which are sometimes even tunnelled, and they are carried over mounds and embankments across the low-lying grounds. Some 70 or 80 feet broad in the plains, and paved with granite blocks, they are mostly lined with rows of trees like the avenues in Europe. Signal towers occur at intervals of 3 miles, and inns, troughs, regular stages, and military posts for the protection of travellers are also met all along the line. Everything is provided for on these model routes except an efficient postal service, which is left to an association of merchants. Dispatches, however, are seldom lost, even when forwarded from one end to the other of the empire. But outside of such places as Shanghai, the only service organized on the European model is that of the Russian couriers, who reach Peking from Kiakhta through Kalgan in twelve days.

"China proper is intersected in every direction by two thousand imperial highways, which with the great number of navigable streams, and the extensive system of canalisation, renders the country one of the richest in the means of communication in the whole world. Unfortunately the State has neglected to keep either roads or canals in repair, or protect them from the wear and tear of time and weather, so that they are now partly impracticable. Morrison gives a deplorable account of the present condition of the Grand Canal, on which Peking largely depends for its supplies. In 1880 some parts were in such a ruinous state that the boats could not pass through, and portages were formed at the sides for discharging and re-shipping farther on.

"The most direct trade route between China and Europe runs from Hankow through North Kansu and across the Gobi desert to Hami, and thence by the Pe-lu route through the Zungarian depression, or the alternative Irtish valley, to Orenburg. The Russians are beginning to see that the future trade route must

follow this line, which is practicable for carriages throughout the whole distance of 2,580 miles from Zaisan to Hankow except a section of 160 miles, which presents no difficulty to pack animals. It can be traversed in 140 days, whereas by the far more difficult Kiakhta road, which is 1,800 miles longer, it takes 202 days to reach Peking. The whole of the route between Hankow and Zaisan was traversed by Sosnovski in the year 1881." *

Hitherto the construction of railways has not been sanctioned by the Imperial Government. Except in the neighbourhood of the coal mines and dockyards, there

Fig. 146.—General View of Nanking.

are not even any tramways in the empire. Yet the success of the short line between Shanghai and Wusung, tolerated for a few months by the authorities, shows that the locomotive would soon become as popular in the extreme East as elsewhere. The plans of the main lines from Tientsin to Peking, Shanghai to Fuchew and Hangchew-fu, Canton to Nanking, have already been prepared by the English engineers, and abundant capital would be forthcoming for their

* A. H. Keane's "Asia," 1882.

construction, if once authorised by the administration. The objections advanced by the mandarins were equally applicable to the introduction of steamers. They pretend to plead on behalf of the millions of porters and boatmen at present engaged in the transport traffic; they also appeal to the *feng-shui*, as they did

Fig 147.—Routes, Telegraphs, and Lines of Steam Navigation in China.
Scale 1 : 20,000,000.

English, French, and Japanese Lines of Steam Navigation.
Chinese Lines.
Main Routes.
300 Miles.

when they opposed the erection of lofty buildings on the European "concessions." But the graves might easily be removed by practising the suitable rites, while the Emperor, "master of the spirits," might indicate to them the proper route to take, and reassure his subjects by informing them of the orders he has given to the

circumambient genii. But the true reason of the opposition is the fear that a developed railway system might increase foreign influences, a fear which is not perhaps altogether groundless. Hence it is natural that China should place itself in a state of defence before throwing open the country to the projects of European engineers. "China for the Chinese" is the universal watchword in the empire. Even most of the iron and coal mines are allowed to be worked only on the express condition of not employing European hands. Besides this fear of the stranger, the provincial governors have another motive for opposing the railway projects. At present the difficulty of communicating with the capital makes them almost independent of the central authority in their local administration. But more rapid means of locomotion would have the immediate effect of bringing them more under control, and checking their systematic misgovernment of the provinces. Hence their hostility to the inconvenient invention of the "Western Barbarians." But it is not likely that their resistance can much longer avail, and a recent number of the *London and China Telegraph* informs us that a railway 6 miles long was actually constructed early in the year 1882, in connection with the Kaïping collieries in the north.*

The telegraphic system is also rapidly spreading. All the treaty ports are already connected by submarine cable with Singapore, Japan, Vladivostok, and the rest of the world. After much opposition, a double line of wires was completed towards the end of the year 1881 by a Danish company between Peking and Shanghai, and other projects are now under consideration. The old *tuentai*, or "atmospheric" telegraphs, have already fallen into abeyance. They consisted simply of cone-shaped towers resting on square piles of masonry, on which bonfires were kindled, and the signals thus rapidly transmitted to great distances. But such rude contrivances could scarcely do more than warn the Government of outbreaks and other troubles in the remote provinces.

Foreigners in China—Chinese Emigration.

The handful of foreigners settled in China is out of all proportion to the great influence exercised by them, both politically and socially. In 1879 their commercial houses numbered altogether 451, with 3,985 European merchants and employés. Even including the missionaries and travellers, there cannot be more than 5,000 actually domiciled in the country. Yet, few as they are, they have already modified the trade, industry, customs, and thought of the nation to a far greater extent than the Chinese are themselves aware. Along the seaboard a sort of *lingua franca*, the already mentioned "Pigeon English," has been developed, which has acquired some literary standing, and is even current among the natives speaking different dialects. Many colloquial terms have entered into this jargon, but most of the expressions are so changed that they can no longer be recognised either by Chinese or foreigners under their new forms. Its substratum is rather Portuguese than English, and its true origin must be sought, not in

* The locomotive was made on the spot by native workmen, and is said to be very creditably done. —*Nature*, March 23, 1882.

Canton, but in Goa, on the west coast of India. Thus the word *joss*, applied to the statues of Buddha, to the gods and saints, is a corruption of the Portuguese *Dios*.

Chinese emigration is yearly acquiring increased importance, although still far inferior to the movement going on towards the northern regions of the empire. The Chinese already settled beyond the Great Wall in Mongolia, Manchuria, and Outer Kansu are estimated at no less than 13,000,000, whereas there are probably not more than 3,000,000 altogether in foreign countries. It will thus be seen that the part played by Chinese emigration in the general movement of the human race

Fig. 148.—Signal Towers.

has been greatly exaggerated. At least, the anticipation of formidable struggles between the rival Mongoloid and white peoples is somewhat premature.

The distinctive feature of Chinese migration lies in the fact that it consists almost exclusively of male adults. Hitherto no women have been seen in America or Australia beyond the few that have been specially contracted for. None of them have crossed the seas voluntarily, and their number is of no account in the general movement, except in such places as Singapore and Penang, which, from the ethnical point of view, may be regarded as Chinese territory. Hence the increase of infanticide in many of the seaboard villages, where the girls are often sacrificed by their parents, in despair of finding them suitable husbands. Being neither free nor entitled to hold property, the Chinese woman cannot leave the paternal home without express permission, and even in the interior this permission

is seldom granted. Except the higher officials, the natives moving from place to place are rarely accompanied by their families, preferring to set up new and temporary establishments in the remote districts, where they make periodical or protracted visits.

Male emigration, especially among the Hakka of Fokien and Kwang-tung, has acquired considerable proportions, and is now regulated by treaty arrangement between the Imperial Government and foreign powers. The immigrants already form an important element of the population in some places, where their extremely frugal and industrious habits, their perseverance, versatility, and spirit of solidarity, enable them to found flourishing communities where others fail. In the struggle for existence they have the advantage of easily acquiring the language of the country, and whatever be the nationality of the mother, whether Siamese, Tagal, or Javanese, the new family always becomes Chinese, even in physical type. The regions where the race has been most solidly established are the basins of the

Fig. 149.—Range of Chinese Migration.
Scale 1 : 325,000,000.

Emigrants under 10,000. 10,000 to 100,000. 100,000 to 1,000,000. Over 1,000,000.

6,000 Miles.

rivers flowing from Yunnan and Sechuen to Further India. Here, as in Manchuria and Inner Mongolia, at the other extremity of the empire, they have gradually appropriated the land by trade, agriculture, and the civilisation of the aboriginal tribes. By following the course of the rivers, the colonists advancing from the interior must sooner or later join hands with their fellow-countrymen who have reached Siam by the sea route.

In the neighbouring Eastern Archipelago, where they have been long established, the Chinese settlers enjoy a high reputation for thrift, industry, and intelligence. John Chinaman's motto is "small profits and quick returns," and goods of every sort can be bought cheaper in the Chinese than in the European or native establishments. "But in money-lending transactions John Chinaman never charges less than twenty-four per cent. interest, and always insists on good security. He is polite to a degree. If a chance customer, or any one merely looking about, enters the shop, John asks him to sit down, and offers him a cup of tea, or if a

European a glass of beer. He is open to barter, and if you don't open your eyes you must open your purse, for the whole aim of the Chinese is to accumulate a fortune.

"The Chinese traders are, however, a good pattern for the Malays, who have been greatly influenced by them. Besides being good shop-keepers they are very industrious; many are artisans, excellent carpenters, good tailors, shoemakers, and jewellers. But their curse is their taste for gambling. In the evening, when business is over, they will sit with a friend or two under the verandah, lighted up with a grotesque Chinese lantern suspended from the ceiling, smoke the indispensable opium pipe, and have a game of cards, over which the betting is fast and furious. When it happens that John is entirely ruined by card-playing, his gold buttons and everything conceivable gone, he will proceed to the gold and diamond mines, and try to repair his lost fortune." *

In the countries where they do not compete with the dominant race the Chinese immigrants soon become indispensable. Thus they have created the prosperity of Singapore, where, but for them, all industrial and commercial activity would soon be arrested. But elsewhere they often come into collision with competitors in the labour market. Thus, while the thinly peopled colony of West Australia gladly welcomes Chinese settlers to tend the herds and develop a few local industries, the more prosperous states of Queensland, New South Wales, and Victoria, in East Australia, resent the presence of this frugal, thrifty, and laborious element, which has too decided an advantage in the competition with the European labouring classes. They are reproached with gradually monopolizing certain industries, such as mining, and the more feminine occupations of washing and domestic service. Such is their thrift that they contrive to grow rich where others starve. But the poll taxes imposed in spite of the treaties, the vexatious measures of all sorts, and in many cases open violence and massacres, have greatly reduced their numbers, and even diverted the stream of migration altogether from some parts of Australia and California. The Imperial Government has consented to sign a treaty with the United States, limiting the right of its subjects to settle in the republic. The authorities in the Philippines and Dutch East Indies also oppose every obstacle to their intrusion, restricting them to certain districts, excluding them from various professions, burdening them with special taxes, and subjecting them to all kinds of obnoxious police regulations. But the movement can no longer be permanently arrested. The Chinese Mohammedans have even begun to take part in the pilgrimages to Mecca and Medina, and some of these have already settled in the Arabian Peninsula. Thus the relations of the white and yellow peoples become constantly more frequent, and at a thousand different points we are brought face to face with the urgent question how best to reconcile the conflicting interests of the two races, differing so profoundly in character, traditions, habits, and ideas.

* Carl Bock's "Head Hunters of Borneo," 1882, pp. 169, 170.

The New Ideas—Social Progress.

The residence of so many Chinese abroad tends quite as much as the presence of foreigners in China to bring about the inevitable renovation of the land. Careful observers, the Chinese preserve in their memory all the lessons taught them by the hard struggle for existence. They thus learn to adapt themselves to the new conditions, modifying their methods and adopting foreign arts, not with the youthful enthusiasm of the Japanese, but with determination and indomitable perseverance. Proud of their ancient culture, and fully conscious of the superiority of some of their processes, they are never tempted blindly to accept foreign ideas and fashions. Unlike the Japanese, they refuse to conform in dress to the "Red-haired Barbarians," but they are fully alive to the advantages to be derived from Western inventions. Apart from the mandarins, who have privileges to safeguard, and who are consequently wedded to the old ways, the bulk of the people perfectly understand how much they have to learn from Europeans. Patients crowd the English and French hospitals in Tientsin, Shanghai, Amoy, and other places, and the fanciful native pharmacopœia, in which magic played such a large part, is thus being gradually assimilated to that of the West. Vaccination has already replaced the dangerous method of inoculation by the nostrils; and enlightened practitioners, with a knowledge of anatomy, physiology, and hygienics, begin to make their appearance here and there amid the countless tribe of quacks and charlatans. European schools have been opened in the treaty ports, where the students have readily followed all the instructions of their foreign teachers. They have even learned the music of the "Barbarians," to which they were formerly supposed to be absolutely insensible. In spite of the great difficulties presented by works translated from such totally different languages, thousands of scientific books have already been published and largely circulated. The native journals issued by foreigners in the treaty ports are eagerly read, and amongst others the *Shunpao*, a daily paper published in Shanghai, had recently as many as 8,000 native subscribers.

Yielding to the pressure of public opinion, the Government itself established in 1868 a bureau in the arsenal of Kiangnan, for the purpose of publishing Chinese editions of the chief European scientific works. It has also founded in Peking the *Tungwen Kwan*, an administrative college, where English, French, Russian, and German are taught, and where physics, chemistry, medicine, physiology, astronomy, and other branches are intrusted to foreign professors, assisted by native tutors. Most of the courses are conducted in English, and this college, which had about 100 students in 1876, now supplies a portion of the officials engaged in the administration of the empire. On the other hand, the Government establishment hitherto maintained at Hartford, in Connecticut, was suppressed in 1881, in consequence of the dangerous influence of American customs and ideas on the students.

Public Instruction—The Literati.

In Chinese the word *kiao* is applied equally to instruction and to religion, and study is, in fact, regarded as a religious cult. For thousands of years the obliga-

tion of parents to instruct their male offspring has been universally recognised. All towns and villages must be provided with schools, whose teachers are supported by the commune, and freely chosen on the recommendation of the householders. Wealthy families generally keep one or two tutors, and in the large towns there are evening classes for the convenience of those engaged at work during the day. Thus has been developed a deep-rooted respect for learning amongst all classes. A sort of reverence is inspired by the inscriptions and sentences of the ancient sages, which adorn the houses and public buildings, and which convert the whole country into a vast library. The very paper is revered, as if the words covering it were the essence of all knowledge.

Fig. 150.—M. Yang, Attaché of the Chinese Legation in Paris.

"After reading and writing the whole education of the Chinese consists in the knowledge of the ancient classics, which in themselves contain many excellent doctrines, but are hardly sufficient to form the beginning, middle, and end of a man's education. Moreover, in these ancient classics there are many exceedingly difficult and obscure passages; a certain fixed interpretation of these is prescribed by law, and woe betide the unfortunate candidate at an examination who should venture to think for himself, suggest any new meaning, or cast additional light on that which has once been explained by the sages in a certain way, and of which in consequence any further illumination would be profane.

"Can it be possible for any nation to devise a system which would more effectually crush out all germs of originality or thought from the mind of the people?" *

Yet the superstitious respect for this system has been transferred to the literati, and to the Government which they represent. Men who have had the good fortune to penetrate into the mysteries of writing seemed almost like demigods. But recent events cannot but tend to diminish the traditional veneration of the masses for the literati. The hollowness of their vaunted science has been revealed, and it was discovered that, without having studied the "five classics," foreigners have succeeded in making discoveries immeasurably more important than the dry-as-dust commentaries on the words of Confucius. Here are already the germs of a moral revolution, which cannot fail to have its political consequences. The prestige of authority is on the wane, and no efforts of the mandarins will

* Gill, *op. cit.* i. p. 307.

succeed in again reviving it. The peasantry and labouring classes, a great part of whose existence has not been spent in the study of the written language, perceive how much reduced has been the distance separating them from the literati. The centre of gravity in the empire is being displaced, to the advantage of the people and at the expense of the authorities, and political revolutions are the inevitable consequence of the intellectual evolution now taking place.

Pending Changes in the Social System.

To speak, as many do, of the immobility of the Chinese Empire, is altogether unjust, for nowhere else have more revolutions been accomplished, or more varied systems of government been essayed. "To improve, renew yourself daily," said one of the ancient sages quoted by Confucius. But it is not difficult to understand why great changes are now slower in China than elsewhere. The people have the consciousness of their ancient culture, and they may have well believed for centuries that they were the only civilised nation, surrounded as they were either by barbarians or by populations whose teachers they had been. Suddenly from beyond the seas and over the plateaux and deserts they behold other nations advancing, who with a more recent history outstrip them in knowledge and industry. The world becomes enlarged and peopled around them, and those outer spaces, to which they attached such little importance, are discovered to be ten times larger and twice as populous as China itself. Their assumed superiority thus disappears for ever. Assuredly such a proud people could not without bitterness contemplate the relative diminution of their importance in the world, and it must have cost them many a pang to have to learn new lessons of wisdom in the school of the stranger. Nevertheless these lessons they are prepared to learn, without, however, losing their self-respect. They study the European sciences and industries, not as pupils, but rather as rivals, anxious to turn their opponents' resources against themselves.

It was high time that this outward impulse should come and quicken the nation into a new life. Science had been reduced in China to the art of skilfully handling the pencil in the reproduction of empty classic formulas. Proud of possessing in their ideographic signs a really universal language, the literati, who are also the rulers of the people, had come to regard reading and writing—that is, the instruments of science—as science itself. Hence they were content to pass their life in learning to read. The measure of their reputation was filled when, after a long course of studies, they had mastered all the mysteries of their written language. Short indeed was life for this long art, which left them no time for independent studies. Ignorant of the present, indifferent to the future, they have hitherto lived only in the past. Everything must be judged by tradition and the precedents found in the classics, where must also be sought the rules of government. To write and understand the official dispatches, to discover the formulas of the rites accompanying all important social and political acts, constituted, in fact, the distinctive functions of the mandarin, the foundation of his prestige, his only claim to the obedience of his subjects.

GOVERNMENT AND ADMINISTRATION.

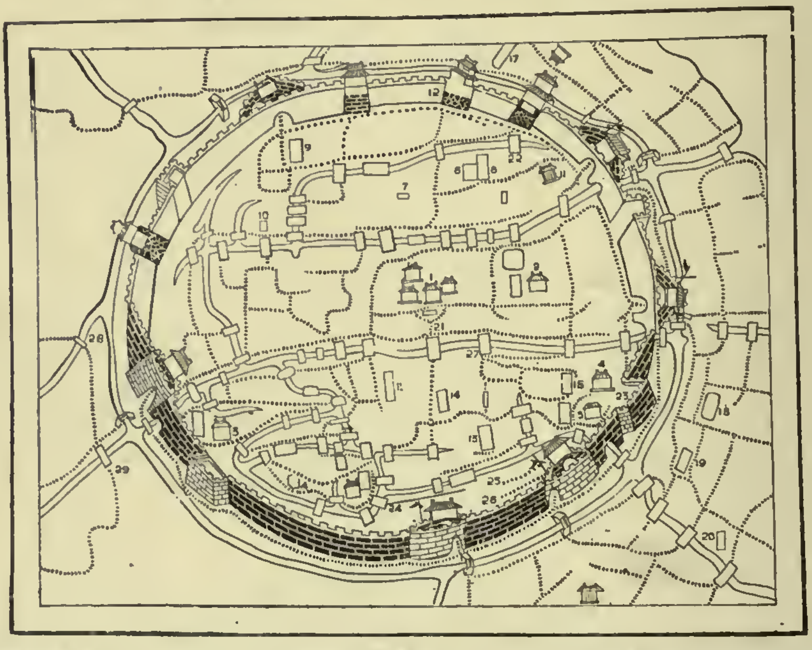
Theoretically the State is a large family. The Emperor is at once "Father and Mother" of his children, and the affection due by them to him is that of a twofold filial piety. If he commands, all hasten to obey; if he requires the life or property of a citizen, both must be surrendered with a sense of thankfulness. He may even control land, water, and the air, for the invisible genii all execute his mandates. He is the "Son of Heaven," the Sovereign of the "Four Seas" and of the "Ten Thousand Peoples." He alone has the privilege of sacrificing to heaven and earth as the High Priest and Head of the great Chinese family. He speaks of himself in lowly language, as an "imperfect man," and is even distinguished amongst the grandees of his court by his modest garb; but he accepts the most extravagant expressions of worship. Present or absent, he receives from his subjects divine honours, and the highest dignitaries fall prostrate before his empty throne, or before his yellow silk umbrella adorned with the five-clawed dragon and the turtle, emblems respectively of good fortune and power. In the provinces the mandarins burn incense on the receipt of an imperial dispatch, and strike the ground with their head turned towards Peking. So hallowed is his name, that the signs used in writing it can no longer be employed for other words without being modified by a diacritical mark. "Tremble and obey!" is the formula invariably terminating all his proclamations. Under him all are slaves, and his representative in Tibet during the expedition of Huc and Gabet wore the chains of a criminal in the form of a gold necklace concealed under his robes, in token of the imperial displeasure.

Filial Devotion to the Head of the Family and of the State.

The veneration of the people for their "Father and Mother" is not merely a political fiction. All the national institutions are so constituted as to establish a perfect parallelism between the duties of the son and those of the subject. From his childhood upwards the Chinese learns that the paternal authority belongs to the head of the great family, as well as to the head of the smaller family of which he is a member. Even in the school a coffin inscribed with the word "happiness" reminds him that his first duty will be to appease the manes of his parents. "Unruly conduct implies a lack of filial duty, as do also treason to the sovereign, negligence in the exercise of the magisterial functions, insincerity towards our friends, cowardice under arms." The father is always regarded in the family as representing the emperor; hence domestic revolt is punished in the same way as high treason. The national annals are full of incidents which bear witness to the care taken by the Government to uphold this fundamental principle of the empire. Sons guilty of crimes against their parents are put to death, and their houses demolished; the magistrates of the district lose their office, and the examination halls are closed. The spot where the crime took place remains accursed, and whole communities have even been displaced, as was the city of

Luchew, on the Upper Yang-tze, in consequence of a parricide. According to law, old men after their seventieth year must be regarded as ancestors, and the honours accorded to them increase with their years. At any cost the empire must remain "filial," as the imperial edicts express it. Of the sixteen public lectures delivered periodically to the people on the subject of their duties, the first deals with filial love. The very official designations of the cities, palaces, streets, and public places form, so to say, a complete moral course inspired by the domestic virtues. Amongst the twelve temples required by the law to be erected in

Fig. 151.—Chinese Quarter, Shanghai.



1. Magistrates' House.
2. University.
3. Residence of the Military Commander.
4. Corn Depôt.
5. Depôt of Rice for Peking.
6. Literary Institute.
7. Temple of the Defender of the City.
8. Temple of the God of War.
9. Temple of the Protector of Earthly Goods.
10. Temple of Blessings.
11. Government Palace.
12. Tower of the Goddess Kwan Yin.
13. House of all the Benevolences.
14. Foundling Asylum.
15. House of all the Virtues.
16. Temple of the Fire Genius.
17. Palace of the Heavenly Queen.
18. Hall of the Blue Mist.
19. Hall of the Nine Flowers.
20. Mound of the little opaque Sun.
21. Peace Street.
22. Street of the Heavenly Eminences.
23. Street of the House of Eloquence.
24. Street of the Head looking backwards.
25. Street of the Approving Head.
26. Street of the Yellow Head.
27. Canal of Excellence of the Starting-point.
28. Serene Sanctuary of the Ancestors.
29 Bridge of the Thousand Ages.

every town, one is always consecrated to ancestry. Not a shop nor a wayside inn but its signboard has some reference to virtue and justice and the "harmonies of heaven and earth."

The natural relations of father and son are thus confounded with those of emperor and subject, and this has been the mainstay of the State in the midst of countless internal revolutions, foreign invasions, and dynastic changes. The revolutionists do not seem to have ever aimed at the subversion of this fundamental principle of government. Even the most advanced socialists have always accepted the sacred character of the Emperor as at once the "Father and Mother"

sovereign outrages justice. "There is no difference," he said, "between murder by the sword or by maladministration."

The Government being modelled on the family, both the mother and consort of the Emperor are entitled to the highest honours. Like him, the reigning Empress has the golden seals and jade stone, symbols of supreme power, and to her poetry has consecrated the *fong*, a fabulous animal analogous to the phœnix. She receives the homage of the Emperor himself, who every five days pays her an official visit and bends the knee in her presence. The three other legitimate wives yield her implicit obedience, as do all the other members of the harem, who are limited by the book

Fig. 152.—Summer Palace—Bronze Lions, Emblems of the Imperial Power.

of ceremonies to one hundred and thirty. A special minister takes charge of the imperial household, and directs the education of the princes, who have mostly no rank except in the Manchu armies. From their number the Emperor chooses his heir, who is nearly always one of the Empress's children. At the death of the sovereign all social life is suspended. The grandees put on white, the colour of mourning, for a twelvemonth, the others for one hundred days, during which period no feasts or weddings can be celebrated. Bright-coloured garments are laid aside, all leave their hair unshaven, and the barbers, whose office is interdicted, become for the time State pensioners.

"Lost in his greatness," the Son of Heaven, called also the "Man of Solitude,"

probably because no one has the right to be his friend, delegates his functions to the *Neïko*, a Cabinet composed of Manchus and Chinese in equal numbers, which draws up the laws, issues decrees, and sees to their execution. In virtue of the principle by which instruction and the public examinations are the source of all honours, the two presidents of the Neïko—that is, the two Imperial Chancellors—are the directors of the Academy of the Hanlin. Their office is to propose the laws in the supreme council, to determine the form of public mandates, to submit official documents to the Emperor for his signature with the vermilion pencil, and to publish all decrees in the *Kingpao*, or official journal, known in Europe as the *Peking Gazette*. Before being presented to the Council of the Neïko, all State questions are submitted either to the tribunal of the Censors, the High Court of Justice, or the *Lu-pu*, which comprises the six Ministries of Finance, Civil Service, Board of Works, War, Rites, and Penalties. Besides these, another department has charge of the Colonies; that is, of the imperial possessions beyond the eighteen provinces of China proper. But the *Tsingli-yamen*, or Foreign Office, constituted in 1861, and now the most important of all, has no official existence, being composed of the members of the other departments.

The Emperor may, if he pleases, suppress all discussion, in which case he addresses himself to his private Cabinet, which deliberates in secret. His acts may doubtless be controlled by the tribunal of Censors, who have the right of remonstrating, while petitioning to be beheaded or torn to pieces if their warnings be not justified or their statements revealed. But this tribunal usually confines itself to watching over the public and private conduct of the mandarins and their subjects by an organized system of espionage. The result of this is that their lucrative posts easily enable the mandarins to come to an understanding with the Censors, and thus continue the work of extortion to their mutual benefit.

Hence it is not surprising to find that instances of extortion and oppression of all sorts are so universal as scarcely to excite any surprise amongst the people. Meadows mentions the case of a military mandarin of low rank stationed some years ago near Whampoa, who in the course of his exactions demanded money from the head boatman of a watch-boat, employed by the inhabitants of the district for the prevention of night robberies on the river below Canton. The boatman, relying on the support of his employers, among whom were several literati, refused to give anything. The mandarin thereupon induced a man, taken for some trifling offence, to make such declarations in his depositions as went directly to prove that the boatman had been guilty of robbery, and then issued a warrant for his apprehension. The inhabitants of Whampoa, represented by a literary graduate named Fung, would not, however, permit the man's being seized; but knowing him to be innocent, said he should himself go to Canton and demand a trial. This he accordingly did, the graduate Fung at the same time petitioning the Governor-General on his behalf. But the mandarin had already reported the case to his chief, the admiral at the Bogue, and the latter had written to Canton about it. In addition to this, the mandarins are at all times loath, from a kind of *esprit de corps*, and a feeling of the necessity of mutual support in their extortions, to aid the people

when in opposition to a member of their own class, and were, moreover, at that time, as now, doing all they could to regain the power over the people, which they had lost through the weakness displayed during the wars with the English. The consequence was that, for these various reasons, the death of the unfortunate man was determined on. He was accordingly beaten and otherwise tortured till he confessed himself guilty of the charge brought against him, and soon after executed, with several other equally innocent people who had been implicated in the same manner by the Whampoa mandarin. The graduate Fung had his degree taken from him for having interested himself in behalf of a robber.*

Education—Public Examinations.

There is no special board of education, because the whole machinery of the administration is assumed to have no other object except the instruction of the people. Students able to read the five *King* and the other classics may already look forward to a brilliant career, one of the fundamental principles of government being that place is the reward of merit attested by the public competitive examinations. "Here is taught the art of government," says an inscription over the gate of the Peking Academy. Promotion to higher posts is still obtained by fresh examinations, so that the whole administration may be regarded as a vast scholastic hierarchy. When the coffers are empty, the Government no doubt often departs from the rule, conferring honours for "presents," or bribes; but the people do not forget the origin of these functionaries, and will even taunt them with having obtained promotion by money instead of merit. Many of the Manchu military mandarins also owe their appointment to their nationality, and they are consequently held in less esteem than the civil functionaries. At the annual feasts the learned mandarins take the east side, which is the post of honour, while in the temples of Confucius the military officers are excluded altogether from the ceremonies in honour of heaven and earth.

In all the large cities one of the chief buildings is the public examination hall, which consists of a multitude of rooms and courts, surrounded by cells for the candidates, who are supplied with nothing but white paper, pencils, and inkstand, and guarded by sentinels from all communication with each other. Sometimes as many as 10,000 or 12,000 present themselves, remaining for several days imprisoned, writing moral and political essays, commenting on selected texts of the sacred books, composing sentences and maxims in prose and verse. Candidates have been known to die of exhaustion in their cells, in which case the outer wall is pierced, and the body secretly removed. Except certain despised classes, police agents, actors, barbers, palanquin bearers, boatmen, mendicants, descendants of rebels, all are allowed to compete, and the examiners will even shut their eyes to the status of the candidates, provided they have a fixed domicile. There is no limit as to age, old men and precocious youths often presenting themselves; but such is the severity of the tests, that, on an average, less than a tenth of the

* "Chinese Notes," p. 176.

competitors obtain the *siutsai*, a rank corresponding with our B.A. Those who have passed, even before obtaining an appointment, become almost independent of the communal authorities, and constitute a special and numerous class in the State. Amongst them are found the most enlightened members of the community, the most daring innovators, by whom the work of social reform is being most actively promoted.

Every year the Chancellor, delegated by the Academy of the Hanlin ("Plumage of the Red Phœnix"), inquires into the condition of the licentiates of the previous year, classifying them in the order of merit, and even occasionally degrading them. But the examinations for the *Kiu-jen*, or higher degree of "promoted men," take place every three years only in the provincial capitals, under the presidency of two members of the Hanlin. The successful competitors, scarcely more than 1,300 for the whole empire, receive the congratulations of the magistrates, and public rejoicings take place in their honour. Three years afterwards they may present themselves in Peking, to undergo the examination for the rank of *tsinsé*, or "full doctor," entitling them to a special dress, precedence at the ceremonies, and a high post in the Government. Other examinations admitting to the Academy of the Hanlin take place in the Imperial Palace, under the very eyes of the Emperor, or at least of the highest court dignitaries, amongst whom they intrigue for promotion.

For the reality is far from corresponding with the brilliant picture often drawn of this system. Even supposing that appointments always depended on the results of the examinations, it may be asked how a good memory and a profound knowledge of the classics can be any guarantee of political intelligence and capacity. Is it not rather to be feared that by being restricted to antiquated studies, over twenty centuries behind the age, the future statesman will become a victim of arrested development, and thereby rendered incapable of understanding the present conditions? However perfect his penmanship, the magistrate is none the less exposed to the temptations of venality and peculation. The unanimous testimony of travellers, as well as the popular comedies, ballads, and political squibs, accordingly show that the lettered functionaries are by no means inferior to the ignorant Manchus in the arts of oppression and maladministration. As a rule, the people are less afraid of the mandarins who have purchased their office than of those appointed by competition. Being richer, they are less avaricious, and although less familiar with fine maxims, they are more upright and less enslaved to official "red-tapeism."

Nevertheless there can be no doubt that the surprising stability of the Chinese political system in the midst of countless foreign invasions and internal convulsions is in a large measure due to these public examinations, which are conducted with great impartiality, and which render the highest offices of the Government accessible to the meanest citizen. A great number of the only class of individuals whose abilities would enable them, if subjected to continual oppression, speedily to overturn the Government, are by the existing system of public examinations continually raised above all oppression, and become, in fact, the parties who commit

it. A still greater number hope to raise themselves to the same position, and are, together with their relations, thus induced to endure such evils patiently rather than seek to overthrow a Government, the characteristic feature of which is a system they hope eventually to derive more personal advantages from than would be sufficient to compensate them for what they suffer. With this latter body of literati, rising scholars and their near relations, the actual holders of office are, moreover, always obliged to be somewhat more scrupulous and tender in their dealings. Hence the only class which the mandarins have to repress and overcome by force is composed of persons who have either no natural ability, or are too poor to procure an education—persons who, with a moderate proportion of talented and educated leaders, would from their number and their desperation be truly formidable, but, left as they are to themselves, only break out into tumults and insurrections, which, like the Jacquerie in France, and the insurrection of the common people in the minority of Richard II. in England, and those that prevailed in the south of Germany and in Hungary during the end of the fifteenth and the first quarter of the sixteenth centuries, are ultimately put down with terrible loss to themselves, after some well-deserved punishments have been inflicted and some ravages committed by them at the first outbreak.

In China, in addition to the absence of talent and knowledge on the side of the insurrectionists, it so happens that the education, which the promotion of talent and ability only to the honour and wealth conferred by office diffuses so extensively, is of a nature which tends materially to prevent ideas of resistance spreading among the people. Every man is induced to learn himself, and infuse anxiously into the minds of his children from their earliest infancy, a set of doctrines all inculcating the duty of patient endurance, the necessity of subordination, and the beauty of a quiet, orderly life. The feelings with which the people are thus imbued would not, of course, be sufficient of themselves to prevent a successful rise against the cruel oppressions actually existing. But they help to do so, and in every case they give a speedier effect to the power, moral and physical, which is put in motion to suppress commotion. For it is only very strong, and therefore very rare, minds that are able to offer a continued practical resistance to the deep impressions of early youth.*

The Mandarins.

All the civil and military officials, often grouped under the collective designation of *Pé-kwan* ("Hundred Functions"), bear the generic name of *Kwang-fu*, translated in European languages by the term "mandarin," which was originally the Portuguese pronunciation of the Hindu title of the native magistrates in Goa.† They are divided into nine orders, outwardly distinguished by the colour and material of the "button," or knob, about the size of a pigeon's egg, which is attached to the official cap of straw, felt, or silk, either

* Th. Meadows, *op. cit.* p. 190.

† Col. Yule's "Book of Ser Marco Polo."

conic in shape, or with upturned brim. Their titles are not transmitted to their offspring, and even when ennobled, the honour is retrospective only, affecting not their posterity, but their ancestry. The civil mandarin is even forbidden to take his father with him to his government, lest, in case they differed in opinion, the son might be placed between two equally imperious duties, obedience and filial piety. Hereditary titles are reserved for the descendants of Confucius and the emperors, but even the latter are subjected to the regular examinations for public offices. The only privileges of the members of the imperial family consist in a modest pension, the right to wear a red or yellow girdle or a peacock's feather in their cap, and to be carried by a team of eight or twelve palanquin bearers. In the administration they count for nothing, and special mandarins are appointed to keep them in due subjection, and even to apply the rod in case of insubordination.

Like the Emperor, every mandarin is at once "father and mother" in his respective jurisdiction. They were formerly spoken of as "clouds," because they were supposed to "shed the healing showers on the thirsty soil." All local functions are centred in their hands. They levy the taxes, build roads, organize the militia, and are, in fact, little potentates in their several districts, but with the threat of deposition always hanging over them. As the father is responsible for the faults of his children, the mandarin may be denounced for all the crimes murders, and outbreaks that may take place in his jurisdiction. Hence, although bound to make a yearly report of his errors in a special memoir addressed to the Emperor, he generally omits to mention the disorders that have occurred in the district. Formerly the mandarins were frequently condemned to capital punishment, but now the usual sentence is banishment to Manchuria, Zungaria, Formosa, or other outlying regions. Recently the foreign powers have unwittingly aimed a great blow at their power, and tended in no small degree to promote the political centralization of the empire, by refusing to treat directly with the provincial governors and viceroys, and by always addressing themselves to the court of Peking.

One of the most serious defects in the existing administrative system is the totally inadequate pay given to the lower officers, and the low rate at which the salaries of the higher mandarins are fixed—low especially when the wealth and extent of the territories over which they rule are taken into consideration. The mandarins are, in consequence, obliged to gain their incomes by means of extortion, bribery, and illegal fees levied by their underlings. These retain a certain portion themselves, but the greater part goes in different ways to the purses of the mandarins.

Perhaps the total amount of revenue, public and secret, derived by the actual governing power in China is not larger in proportion than that obtained in England. The great evil is that by far the larger part of it is levied in a very unequal manner, that at once demoralises the nation and damps its energies.

The people, knowing that the mandarins cannot possibly live on their salaries, excuse and acquiesce in the imposition of certain generally understood irregular fees, which every one who applies to the courts must pay. On the other hand, the

mandarins as a natural consequence take advantage of a system thus endured as a necessary evil, to enforce arbitrary extortions, and oblige people to offer bribes. Hence in the whole country corruption and injustice are rife. In fact, all mandarins without exception take money over and above their salary, and even beyond their anti-extortion allowances. The great difference between what the Chinese call the "good" and the "bad" mandarin is, that while the former makes people *pay for justice,* as indeed is largely the case everywhere, the latter *sells justice* to the highest bidder.

This irregular state of things, moreover, renders the mandarins themselves dependent on their clerks and police officers, and obliges them to wink at infringements of the law by which they personally gain nothing. Thus some of the lower functionaries continue to serve after the legal period of five years, and in fact maintain permanent possession of their posts, merely by changing their names, although the mandarin is liable to a heavy punishment for permitting it. Were he to attempt to enforce the law, these officers would resist in a body; and as it requires great experience and tact to levy the illegal fees without getting into trouble, the new functionaries would find it very difficult to transact public business and raise the irregular revenue, which is, of course, the main object of the mandarins. A case occurred some time ago in Canton, in which a new superintendent of finances, who had at a previous period held a lower post and then been insulted by the underlings, in revenge immediately forced them to leave on being made superintendent himself. But he was eventually obliged to receive them all back again after putting himself to much trouble, and making what practically amounted to an apology.*

At once military commanders, administrators, and judges, it is in the latter capacity that the mandarins are most dreaded by their subjects. Notwithstanding the stringent measures taken against venality, the bribes of suitors still continue to compensate for the low rate of their salaries, originally fixed according to the income they might earn as artisans. The old edicts decree the penalty of death against unrighteous judges, but there is practically no appeal from their sentences. "It is well," said the Emperor Kang-hi, "that all men should have a wholesome fear of the tribunals. I desire that all having recourse to the magistrates be treated mercilessly, so that all may dread to appear before them. Let good citizens settle their disputes like brothers, submitting to the arbitration of the elders and mayors of the communes. Let all obstinate and incorrigible litigants be crushed by the judges, for such is their desert." In many places differences are still settled by the heads of families according to the unwritten code, and the *lex talionis* is everywhere respected. Private vengeance is also often carried out by suicide. Debtors pursued by their creditors, farmers oppressed by their landlords, the artisan injured by his employer, the wife harassed by her mother-in-law, can always adopt the expedient of hanging themselves in order to obtain redress. The whole community then takes up their cause and avenges them—symbolically. A broom is placed in the hand of the victim, and this broom, being moved to the

* Meadows, *op. cit.* p. 168, 169.

Fig. 153.—Vagrant Convicts.

right and to the left, sweeps away the fortunes, the prosperity, the whole household of the tyrant.

Penal Code.

The penal code is clear, precise, and logical, but extremely harsh. Most sentences are passed after a simple examination made in public. There are no recognised advocates, and if the mandarin allows friends or relatives to plead for the accused, it is entirely an act of condescension on his part. Being relatively far less numerous than in Europe, the magistrates decide cases in a much more summary manner. Still armed with the right of inflicting torture, they exercise it with the same severity as was practised in the West until recent times. Scourging, tearing out the nails, crushing the ankles or fingers, hanging by the armpits, and a hundred other excruciating torments are inflicted for the purpose of extracting confessions or revelations of accomplices. Atrocious sentences are daily inflicted, and besides the three ordinary methods of putting to death, by beheading, strangling, and garotting, the code provides for the punishment of "slow death." Formerly flaying alive was protracted for days together, but at present a few gashes on the face and hands are substituted, after which decapitation puts an end to the victim's sufferings. Fortunately the nervous system of the Chinese is far less sensitive than that of Europeans. The doctors attached to the hospitals in Hong Kong and Shanghai all speak with astonishment of the indifference of the patients under the severest operations.

For lighter offences the usual punishments are the rod and the *cangue*, a wooden collar weighing about 75 lbs. The convict condemned to wear this horrible instrument of torture, finding no rest asleep or awake, and exposed night and day to all the inclemencies of the weather, breaks down under the pitiless burden, and implores wayfarers to put an end to his intolerable sufferings by death. The prisons are loathsome dens, where the condemned are huddled together, and exposed to the brutality of gaolers, often chosen from the criminals themselves. Those who are unaided by their relatives or the charitable societies run the risk of being starved to death. Women are seldom punished with severity, their husbands or sons being considered responsible for their faults. The principle of substitution is fully recognised, not only in the case of a son presenting himself instead of his father, but even when a stranger offers, "for a consideration," to undergo the sentence. As long as the debt is discharged, justice is satisfied, whoever be the victim. Even in the case of torture and death, suppliants are found willing to endure everything in order to secure some advantage for their families. During the Anglo-French invasion of Pechili, some Chinese assassins having been sentenced to death, substitutes presented themselves, and loudly denounced the injustice which refused to allow them to take the place of the criminals. Those sentenced to the rod easily find crowds of ready volunteers, whence the remark that "in China there are thousands who live by blows."

In some districts a substitute may be procured to confess himself guilty of a felony, and suffer certain death for about fifty taels of silver, a sum equivalent to £17 sterling, but worth in China perhaps as much as £100, regard being had to the relative price of provisions and other necessaries. Hence it is that the

murder of mandarins and riots are so frequent in those districts. When any of the richer classes are dissatisfied with the conduct of a mandarin, they are never prevented from instigating the lower classes to make disturbances by the fear of personal punishment. Some years ago a magistrate having been killed during an outbreak in the east of Kwangtung, the provincial judge was sent from Canton with a strong force to seize and punish the criminals. On his arrival, however, he found a large body of men assembled in arms to oppose him, and the matter was disposed of by a secret compromise, as so frequently happens in such cases in China. The wealthy members of the community, who had instigated the murder of the district magistrate, awed by the force brought against them, bought about twenty substitutes ready to personate the true criminals. They then bribed the son of the murdered man with a large sum to allow these men to call themselves the instigators, principals, and accomplices. The judge, on the other hand, being obliged by the code of the Board of Civil Office to execute somebody, or see himself involved in punishment, knowing also that if he attempted to bring the real offenders to justice they would employ all their means of resistance, ending possibly in the defeat of his force and his own death, gave way to these considerations, supported as they were by a bribe, and ordered the twenty innocent substitutes to be put to death. This is one of the many instances in which the pernicious effects of the practice of personating criminals make themselves apparent. A system of falsehood and corruption has been engendered by it that is perfectly appalling, and, as in this case, leads frequently to results which cannot be contemplated without a feeling of horror.*

All capital sentences are submitted to the Emperor, and delayed till autumn, when the final decision is made, and the names of the reprieved encircled by a stroke of the vermilion pencil. But in times of disorder or political revolutions the provincial governors are armed with absolute power, and move about attended by bands of executioners, who are kept busily engaged at their sanguinary work. When the English attacked Canton in 1855, the Viceroy boasted that he had dispatched 70,000 of his subjects in seven months, about 330 a day. At present the native tribunals in the European concessions at Shanghai and the other treaty ports are assisted by foreign residents, whence the expression "mixed courts," by which they are usually known. In these tribunals torture is never applied, at least in the presence of the European judges, and in Hong Kong the English have also abolished torture. There is even some hope that it may ere long disappear from the penal code of the empire.

An interesting social feature of Shanghai are these Mixed Courts, where "offences are tried before two judges, one Chinese and one foreign. One of the English judges took me with him one day, and I sat on the bench next to the Chinese official, who had the rank of Chih-Fu.

"The room was fairly large, and the judges' table raised on a low platform. Tho space in front was divided into three portions by railings; the policemen, witnesses, &c., were on the right, and the prisoner was brought in to the centre

* Meadows, *op. cit.* pp. 173, 174.

division, led by his plait. He was obliged to remain on his knees during the trial.

"This man had pretended that he was a broker, and had gone to the different European firms, from each of which he had obtained a sample of sugar, which he afterwards sold retail. He was convicted and sentenced to two months' imprisonment.

"The Chinese official at this stage of the proceedings offered me a cigar, and tea was brought in; after which refection another prisoner was arraigned for driving a jinnyrickshaw without a license, and for which he received twenty blows with a stick.

"The next had stolen a watch; and the last in a crôwded thoroughfare had refused to 'move on.' It was a very amusing sight, and strangely like 'orderly room' in an English barrack." (Gill, i. p. 170.)

Meantime the natives enjoy many traditional liberties unknown in some European states. They may combine to dismiss an unpopular mandarin, politely escorting him out of the district, with much parade and congratulations on his happy release from the burdens of office. They may move about freely in all parts of the empire without being challenged by the gendarmes to show their papers. They follow whatever profession they please without permits or diplomas of any sort. The right of publication through the press or by posters is generally respected, and public meetings are held without giving notice to the police. Even in the restless city of Canton the Government has never attempted to close the doors of the Ming-lun-tang, or Palace of Free Discussion, although it does not forget to send orators who take part in the debates, and endeavour to give them a turn favourable to the interests of the mandarins.

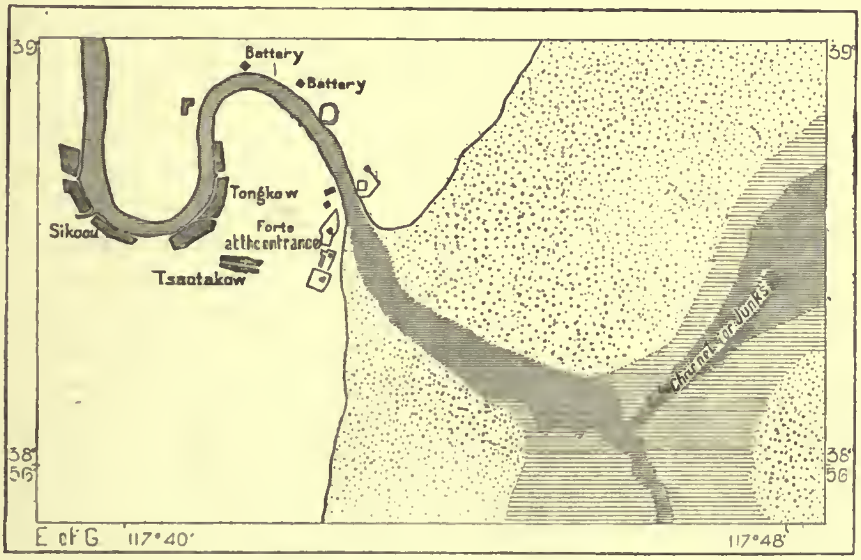
The fundamental principle that society rests on the family has for ages maintained the old communal autonomy. In the villages all the heads of families take part in the election of their representatives, who are chosen mostly from the agricultural class. These rural officials fulfil the functions of mayors, notaries, registrars, tax-gatherers, justices of the peace, arbitrators in family differences, ministers of agriculture, and even masters of ceremonies. No stipends are attached to the office, but they are assisted by other employés, such as foresters, surveyors, writers, also appointed by the community. In the towns all the *kiachang*, or householders, of each quarter, numbering from sixty to one hundred, form a Municipal Council, which elects its own *paoching* (mayor), as well as all the other municipal officers. The mayors of the several Chinese quarters elect district magistrates to look after the common interests, but the Manchu quarter depends directly on the Central Government.

Army and Navy.

Although the military forces are being gradually reorganized on the European model, public opinion is still unfavourable to large standing armies. The people have constantly in their mouth the saying of Confucius, that "for every man who does no work there is another who lacks bread;" and the little esteem entertained for the military is illustrated by another popular saying, to the effect that "good

men are not required to make soldiers, or good iron nails." Hitherto the recent changes have only affected two army corps—that of Tientsin on the Lower Peï-ho, and the 50,000 men who, since the reduction of the Dungan rebels, occupy the western regions of the empire on the Russian frontier. Apart from these, the various armed bodies are little better than those dispersed in 1860 by the Allies near Peking. The army of the "Eight Banners," which was formerly the mainstay of the dynasty, has retained its old organization. It consists almost exclusively of Manchus and Mongols, all married, and each with a plot of ground or a garden, so that they are rather military colonists than soldiers. Numbering about 230,000, they are probably more dangerous than useful, their presence in the

Fig. 154.—Defences of the Mouth of the Pei-ho.
Scale 1 : 133,000.



0 to 3½ Feet. 3½ Feet and upwards.
Mud or Sand exposed at high water.
8 Miles.

Manchu quarters constantly reminding the nation of its defeat, and thus keeping alive a spirit of rebellion against the Manchu power. The only efficient Manchu corps is the Hiaokiying, which occupies the Peking district, and is said to comprise 36,000 men and 26,000 military students. The highest military title, that of *Siangkiun*, answering to the Japanese Shogun, can be held only by a Manchu.

The Lutying, or "Army of the Green Banner," divided into eighteen corps, corresponding with the eighteen provinces, is composed of 600,000 volunteers, all of Chinese nationality. This militia is chiefly employed in the police, in forwarding cereals, in maintaining the embankments, and repairing the highways. The men serve only within the limits of their respective provinces, beyond which they can seldom be induced to march, even in urgent cases. The *futai*, or general, is always a

civilian, on the principle universally accepted in China that arms must yield to the peaceful arts. Bodies of militia are also raised in the various departments at the expense of the communes, and in time of war the Government has the power of enrolling all able-bodied men. But such levies, without any previous training, are found to be worthless in the presence of disciplined troops.

Military exercises are almost always carried on in the imperial hunting park, which is an immense tract of country surrounded by a wall, access to which is jealously forbidden to foreigners. In addition to the land service, the Lutying mans the navy of the seaboard provinces, and has a distinct organization of divisions and garrisons, each under its own general. The strength of these provincial armies varies with the size of the province and with the duties they have to perform. But the average for each province may be about 35,000 men and 640 officers.

Properly led, the Chinese "would make magnificent troops, for by nature they are singularly obedient to authority, and would not question the demands of those who once established an influence over them. In this they are like other Easterns, but more than others their national characteristic renders them particularly incapable of military combinations. A Chinaman can learn anything, but he can conceive nothing. He may readily be taught any number of the most complicated military manœuvres, but place him in a position slightly different from that in which he has learnt, and he will be found utterly incapable of conceiving any modification to suit the altered circumstances. This national characteristic is the growth of centuries of a narrow education; its roots are deeply seated, and lie in the insane reverence for antiquity, which is almost the beginning and end of a Chinaman's belief. Prompt action, readiness of resource, ability to seize on the smallest advantage, or to neutralise a misfortune, and the power to evolve rapidly fresh combinations—these are the qualities that make a soldier, and these are the very qualities that cannot co-exist with the Chinese want of originality. This is no unimportant matter, for it proves that, as they are, the Chinese cannot be feared as a military nation, but that with a large number of European officers, their almost unlimited numbers, their obedience to authority, and personal bravery, when properly led, would make them almost irresistible.

"Further, there is in the Chinese mind a great dread of Europeans. Supernatural powers are popularly attributed to foreigners, and, although they profess to hold the barbarians in contempt, in reality the feeling of fear predominates in their mind, although, perhaps, they would not own it even to themselves. But with good and skilled European officers, they would, as they have done before, make magnificent soldiers." *

The naval are relatively more important than the land forces, and are also more needed for the defence of the empire. In 1880 the navy consisted of 40 steamers, of nearly 20,000 tons burden, and carrying 238 guns. The crews, mostly from Kwangtung and Fokien, are generally skilful sailors, and on many occasions have given proof of signal courage. Fortifications have been erected at the entry of the Canton, Fuchew, Shanghai, and Tientsin Rivers, and for these

* Gill, *op. cit.* i. p. 154-5.

and other defensive works over 400 Krupp guns had already been supplied down to the end of the year 1879. A vast amount of war materials is also being produced in the Government arsenals, over half of the revenue, estimated at £25,000,000, being employed in these military preparations. The foreign loans contracted at various dates since 1874 are also devoted to the construction of forts and ironclads. The eleven wooden ships built at Newcastle for the Government, and almost unrivalled for speed and weight of metal, form an efficient fleet, admirably suited to the defence of the seaboard.

The Chinese make excellent sailors, and an experienced American skipper assured Captain Gill that he preferred them to Europeans or Americans. "They never give any trouble, never drink or quarrel; and although, in cases of danger, he admitted that at first they slightly lost their heads, yet he declared that, with proper leaders, this lasted a very short time, that then they really had no fear, and would work as quietly and as well as under the most ordinary circumstances." *

The Revenue.

The chief source of revenue is the customs, which have been reorganized by Europeans, of whom nearly five hundred are employed in this important service, the official language of which is English. But this branch has charge only of the foreign exchanges, and is replaced in the interior by the *likin*, which is in the hands of native officers, and which doubles, trebles, and increases even tenfold the value of commodities according to the rapacity of the mandarins. By the terms of the treaties a tax of 2½ per cent., added to the import duty of 5 per cent., ought to exempt merchandise from all supplementary dues. But, besides these, tolls are levied at the octroi of the large towns, on the highways, canals, and bridges, and there are many other vexatious charges which greatly hamper the trade of the interior.

But "give us free access to China; protect us in the exercise of our privileges, until the Chinese are accustomed to us and understand us, and fix our duty payments firmly and explicitly, and everything else will follow. The custom-house bugbear will disappear, for the goods will be put down at the door of the customer. Teas and silks will be bought cheaper, for different districts will be made to compete when we buy direct from the producer; and European manufacturers, with moderate energy and enterprise, will make a fair start." †

The Currency.

The want of a convenient currency is also a serious obstacle to traffic. The old monetary system, consisting of gold, silver, and bronze, was abolished in consequence of its depreciation by Government falsifications of all sorts. Nothing is now issued except the *chen*, or sapeks, an alloy of copper and tin in the form of discs, and strung together by means of a hole in the centre. A thousand of these,

* *Op. cit.* p. 17.
† G. W. Cooke, *op. cit.* p. 208.

weighing over 10 lbs., form the *tiao*, or monetary unit, valued at about 4s. But numbers have no precise meaning, and change with every district, so that in Tientsin, for instance, the tiao is worth only 333 sapeks. The *tael*, or *lan*, supposed to weigh an ounce of silver, at a mean value of about 1,500 sapeks, is a fictitious coin, varying in value in the different marts. The foreign customs are regulated by the *hai kwan tael*, whose official value is about 6s., but the dues must be paid in *saisi*, or silver ingots hall marked. The most common coin is the Mexican piastre, specially minted for the Chinese market. There is no

Fig. 155.—Provincial Chief Towns, Fu and Chew, in China.

Scale 1 : 3,000,000.

Provincial Chief Towns. Fu. Chew.

600 Miles.

gold coinage, but paper money, formerly called "winged gold," or "flying money," has been in general use for fully a thousand years.

In every part of the empire exchange is a constant source of endless trouble. "The tael is, properly speaking, a weight of about $1\frac{1}{3}$ ozs. avoirdupois. The term 'tael' is a foreign one, the Chinese word being 'liang.' Almost every province, and often every important city in a province, has its own tael. Thus a piece of silver that weighs a tael at Kung-king will weigh less than a tael at Keng-tu; and as all payments are made by weight, it is necessary to have a balance for each place. Then the quality of the silver varies; and besides this, in making small payments there is the further complication of the number of cash, or 'chen,' to the tael, which is, of course, unavoidable.

"It costs less to carry a pound of silver 100 miles than it does to carry the equivalent value of brass, and at places far removed from centres of civilisation, the tendency is, naturally, to bring more to an equality the value of the two metals, just as the values of all goods tend to equalise themselves, relatively, the greater distance they are carried. But however unavoidable, the difficulty is none the less troublesome to a traveller, who has thus three things to look to—first, the quality of the silver; secondly, the weight of the tael; and thirdly, the number of cash to the tael." *

Administrative Divisions.

China proper comprises eighteen provinces, nineteen with Shinking (Liaotung), or South Manchuria, grouped in eight viceroyalties or general governments. Each province is divided into departments, or *fu*, which are again subdivided into *chew*, or circles, and *hien*, or districts. These terms are usually added to the names of the towns that have been chosen as the capitals of the respective divisions. The *pao* (*tu*), or communes properly so called, average from fifty to seventy in every hien, besides which there are a number of so-called *chili-chew*, which depend directly on the central administration of the province. In the regions inhabited by mixed populations the *ting*, or military prefectures, are numerous, and take the name of *chili-ting* when they are attached directly to the central administration. Some of the subjugated aboriginal tribes have also their distinct communes divided into *tu fu*, *tu chew*, and *tu se*. Peking is under a special military administration, whose jurisdiction extends for some miles beyond the environs. The supreme command is vested in the *tsongtu* for the viceroyalties, in the *futai* for the provinces, in the *futsun* and *tootai* for the circles, while the special commissioners take the title of *Kinchai*.

For a tabulated scheme of the nineteen provinces, with other statistical matter, the reader is referred to the end of this volume.

* Gill, *op. cit.* p. 272.

CHAPTER VI.

KOREA.

THE peninsula which projects between the Japanese and Yellow Seas southwards in the direction of the southern islands of Nippon is completely limited landwards. Like Italy, with which it may be compared in extent, and even to some degree in its orographic configuration, it is separated from the mainland by the Alpine Taipei-shan, or "Great White Mountains," of Manchuria. It has also its Apennines stretching north and south, and forming the backbone of the peninsula. As in Italy, the western slope of the highlands forms, throughout their central and southern sections, the vital portion of the peninsula. Here is developed the course of the Han-kiang, the Korean Tiber, and here is situated the city of Seul, present capital of the kingdom. In Korea, as in Italy, the eastern seaboard is uniform, and almost destitute of inlets, while the west side is deeply indented by gulfs and bays, rich in islands and small archipelagos.

Nevertheless these general resemblances do not descend to minor details. The north-east frontier, towards Russian Manchuria, is very mountainous and of difficult access, whereas the plains of the Yalu-kiang valley present towards the north-west an easy natural passage from the interior of the peninsula to the Chinese province of Liaotung. In this direction the two frontier states thought it necessary to create a sort of "marca," or neutral zone, as a line of reciprocal defence, by leaving a broad tract uninhabited and uncultivated on the north-west side of the Yalu-kiang. Till recently peaceful settlers in this region were liable to capital punishment, although banditti made it their camping ground, endangering the trade route running to the "Gate of Korea," near the city of Fungwang-shan (Fenghoang-cheng), or "Castle of the Yellow Wind." But according to the latest accounts the neutral zone, which has an area of about 5,600 square miles, is beginning to be brought under cultivation. Chinese settlers are gradually encroaching and reclaiming the land, while some Koreans have on their side already formed settlements beyond the frontier.

Like most regions of the extreme East, Korea is known to foreigners by a name which has little currency in the country itself. This term, belonging formerly to the petty state of Korié, has been extended by the Chinese and Japanese to the

whole peninsula, under the forms of Kaokiuli, Korai, and Kaoli. When all the principalities were fused in one monarchy, towards the close of the fourteenth century, the country, at that time subject to China, took the official title of Chaosien (Tsiosen)—that is, "Serenity of the Morning"—in allusion to its geographical position east of the empire. Thus it is now designated by a poetical expression which exactly indicates its position between China and Japan. While for the people of

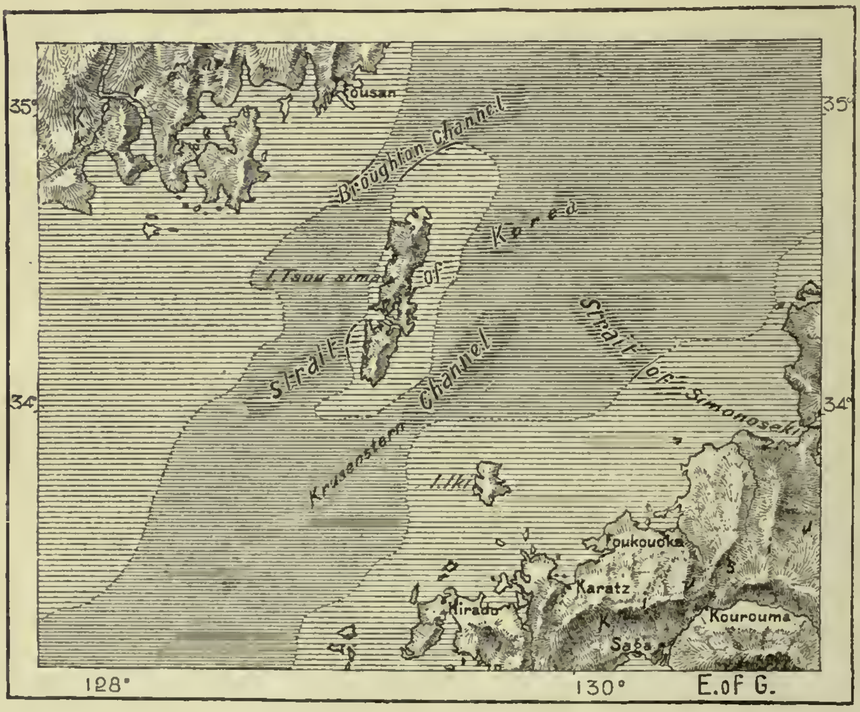
Fig. 156.—General View of Kang-hoa, Lower Hang-kiang.

the continent Japan is the land of the Rising Sun, Korea is the "Serene" land, illumined by the morning rays.

Although washed by two much-frequented seas, and yearly sighted by thousands of seafarers, Korea is one of the least known Asiatic regions. Even the seaboard, which presents so many dangers to navigation, has been so imperfectly surveyed that its contour, as laid down on the charts, is still largely hypothetical. Before the seventeenth century European geographers supposed that Korea was an island,

and it is so figured on the maps of Mercator, Ortelius, and Sanson. But its peninsular character was revealed by the map sent by the missionaries from Peking, and reproduced by D'Anville. The first accurate observations date only from the eighteenth century, and it was not till 1787 that La Pérouse determined the position of the large island of Quelpaert (the Tanglo of the Chinese, and Tamuro of the Japanese), and surveyed the Strait of Korea between the two inland seas. Ten years afterwards Broughton coasted the southern extremity, passing through the strait which bears his name, and which flows between the mainland and the double

Fig. 157.—Korea Strait.
Scale 1 : 2,800,000.



0 to 320 Feet. 320 Feet and upwards.

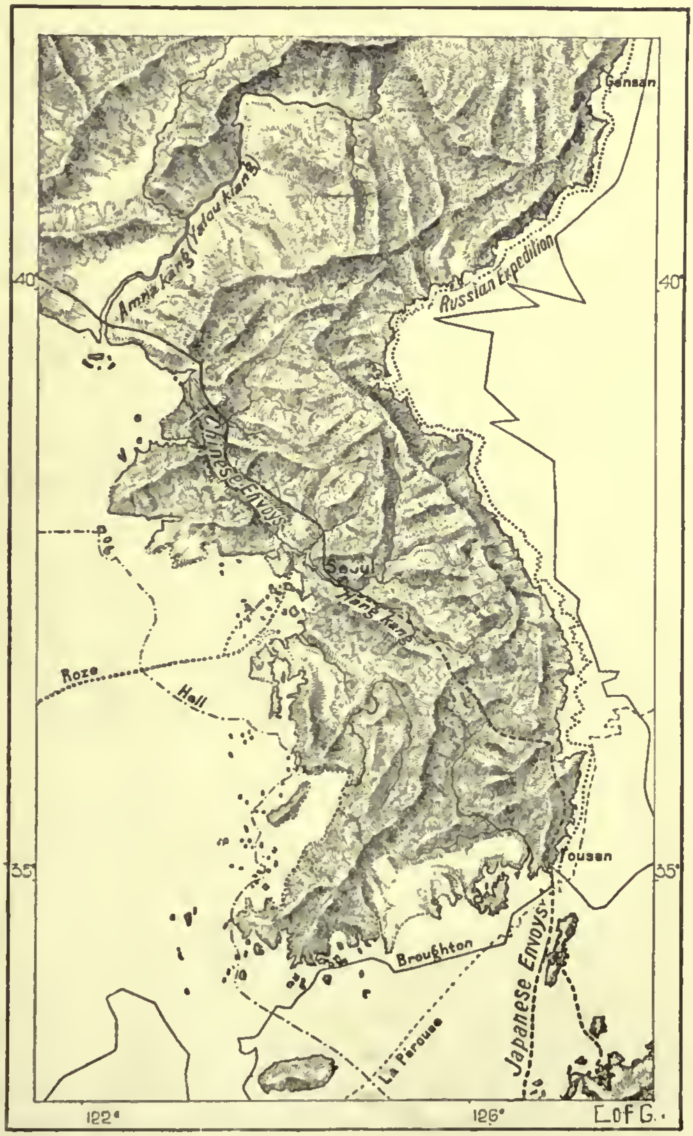
60 Miles.

island of Tsu-sima. Later on Krusenstern extended our knowledge of the coast north from the island of Kiu-siu, and the work of exploration was continued during the present century by Maxwell, Basil Hall, and others of various nationalities. At present the seaboard is being most carefully studied by the Japanese navigators, who have already taken extensive soundings throughout the thousand channels of the islets, and dangerous reefs fringing the south-west coast, and figuring on the Chinese maps as part of the mainland. Thanks to all these surveys and discoveries, the area of the peninsula may be approximately set down at about 95,000 square miles, or nearly half that of France.

Progress of Discovery—Foreign Relations.

The interior of the peninsula cannot be said to be altogether unknown, since its mountains are visible from the coast, whence even many plains and valleys may

Fig. 158.—Explorations of Korea and surrounding Waters.
Scale 1 : 700,000.



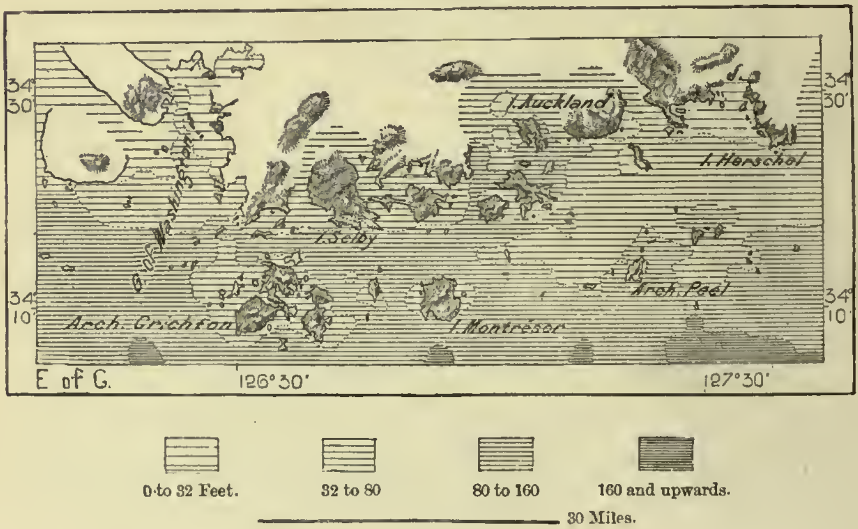
120 Miles.

be recognised. But although D'Anville's map, of which most others are a mere reproduction, is based on native documents, the direction of the ranges, the river valleys, and the sites of the cities are figured on it without any attempt at accuracy; nor have previous labours hitherto been checked or rectified by any explorer

worthy of the name. In 1653 the Dutch writer Hamel having been shipwrecked, with thirty-five companions, on Quelpaert Island, he was brought captive to the capital, and during the thirteen years of his captivity devoted himself to the study of Korean manners and customs. But he had no opportunity of exploring the land, and his itinerary is confined to the west coast. The western slopes have also been traversed in almost every direction by the Catholic missionaries, who have penetrated into the country since 1835 either from Manchuria or by sea from Shantung. But although obliged to travel in disguise, generally by night and along unbeaten tracks, to their reports we are mainly indebted for our most trustworthy information regarding the geographical features of the land.

From its very position between China and Japan, Korea could not fail to have been a subject of contention for its powerful neighbours. Before its fusion in one state it comprised several distinct principalities, whose limits were subject to fre-

Fig. 159.—South-west Archipelago of Korea.
Scale 1 : 1,300,000.



quent changes. These were, in the north, Kaokiuli (Kaoli), or Korea proper; in the centre, Chaosien and the seventy-eight so-called "kingdoms" of Chinese foundation, usually known as the San Kan (San Han), or "Three Han;" in the south, Petsi, or Hiaksaï (Kudara), the Sinlo of the Chinese, or Siragi of the Japanese; besides the petty state of Kara, Ziuna, or Mimana, in the south-east, round about the Bay of Tsiosan. The northern regions naturally gravitated towards China, whose rulers repeatedly interfered in the internal affairs of the country. But the inhabitants of the south, known in history by the Japanese name of Kmaso, or "Herd of Bears," were long subject to Japan, while at other times they made frequent incursions into Kiu-siu and Hondo, and even formed settlements on those islands. The first conquest of the country was made by the forces of the Queen Regent Zingu in the third century. Towards the end of the sixteenth the cele-

brated Japanese dictator and usurper Taïkosama, having conceived the project of conquering China, began with that of Korea, under the pretext of old Japanese rights over the country of the Kmaso. After wasting the land he compelled the King to become his tributary, and left a permanent garrison in the peninsula. A fresh expedition, although interrupted by the death of Taïkosama, was equally successful. Tsu-sima remained in the hands of the Japanese, and from that time till the middle of the present century Korea continued in a state of vassalage, sending every year presents and tribute to Nippon. According to the missionaries, thirty human skins at first formed part of this tribute, but were afterwards replaced by silver, rice, linen fabrics, and medicinal plants.

Thanks to the aid sent by the Ming dynasty to Korea, in its victorious struggle with the other petty states of the peninsula, and in its resistance to Japan, its relations with China continued to be of the most friendly character. Admirers of Chinese culture, the native rulers felt honoured by the investiture granted them by the "Son of Heaven." But after the Manchu conquest of the Middle Kingdom, Korea remaining faithful to the cause of the Mings, the new masters of the empire invaded the peninsula, and in 1637 dictated a treaty, imposing on the Koreans a yearly tribute of 100 ounces of gold, 1,000 ounces of silver, and a certain quantity of furs, roots, textile fabrics, and other natural and industrial products of the land. But although since that time the native ruler takes the title of "Subject," China exercises no real sovereign rights in Korea. No Chinese emigrants are allowed to settle in the peninsula, and even the envoys from Peking are obliged to leave their suites outside the walls of the capital, where during their stay they remain confined to the palace, more like honoured captives than the representatives of a master. Thus, although for over two hundred years a vassal to both of its powerful neighbours, the peninsula has practically retained its autonomy.

A third empire, having become conterminous with Korea, has begun to make itself felt. Conflicts have already taken place between Russians and Koreans, and the Government of St. Petersburg has more than once assumed an aggressive attitude. A well-sheltered harbour on the south coast of the peninsula would certainly be of the greatest advantage, both commercially and strategically, to Russia. From such a station she might command at once both the Chinese and Japanese waters, and thus become supreme in the Eastern seas. But a reasonable pretext for attacking the feeble kingdom of Korea has not yet been discovered, and meantime the influence of Japan has recently been most active in the peninsula, where she has secured certain concessions and commercial privileges still denied to all other foreign powers except the United States of North America.

Physical Features—Orographic System.

According to Dallet the chief mountain range of Korea branches off from the Tai-pei-shan at the Paiktu-san, whose crest forms the parting-line between the waters flowing north-east to Tiumen-ola, and south-west to the Yalu-kiang. South-east of these highlands, which are still held by independent tribes, an

extensive depression is filled by the Tai-ti, the only large lake in Korea, stretching apparently some 24 miles east and west. Several peaks rising above the main ridge bear the name of Paik-san, or "White Mountain," so that this term might be extended to the whole range from the frontier of Manchuria to Broughton Bay. The summits seem to be here very lofty, but none of them have yet been visited, and elevations have been taken only for the peaks on the coast visible from the sea. The Hien-fung, near the north side of Broughton Bay, has an altitude of 8,200 feet, while several others rise to a height of 6,500 feet and upwards.

There can be no reasonable doubt as to the generally mountainous character of the interior. In every direction the view is broken by hills, some denuded, others covered with dense forests, bounding the horizon with their peaks, cones, sharp summits, and rugged crags. The valleys are everywhere narrow and connected by savage gorges, so that no plains of any extent are developed except near the seaboard. The surface of the land presents the general aspect of an inclined plane falling abruptly eastwards to the deep Sea of Japan, and sloping westwards far more gently towards the shallow waters of the Yellow Sea.

As far as can be judged from the available data, the complex orographic system would seem to be produced by the intersection of the main axis, running in the line of the meridian along the east coast, with transverse ridges belonging to the Chinese system. The very form of the inlets on the west coast seems to show that the elevations follow in Korea the same direction as on the neighbouring mainland. A tongue of land projects far into the Yellow Sea towards the Shantung peninsula, thus enclosing the Gulf of Pechili from the outer waters. In the same way the south-west extremity seems to be continued between the Yellow and Eastern Seas by quite an archipelago of islands, forming a pendant to the Chusan and Ningpo groups on the Chinese coast. Two at least of the Korean ranges also run south-west and north-east, parallel with the highlands of Manchuria, Mongolia, Pechili, and Shansi. One of these, forming a continuation of the Shantung system beyond the Yellow Sea, intersects the Paiksan chain, east of which it skirts the Korean seaboard as far as Possiet Bay. The other, beginning at the southernmost extremity of the peninsula, gradually merges in the eastern uplands on the convex east coast commanded by the Tsiongyan-san, or Mount Popov of the Russians. The islets attached to this ridge rise abruptly from the water to heights of 1,500, 2,000, and even 2,200 feet. The island of Quelpaert itself, now a Korean convict station, forms a small chain running in the same south-west and north-east direction, and culminating with the white cliffs of the Aula, or Hanka-san, the Auckland of the English surveyors, which attains an elevation of 6,700 feet.

The Korean Archipelagos.

The west coast is fringed by numerous islands and small archipelagos, which have not yet been accurately surveyed, and the extent of which was a constant source of surprise to the early navigators. "We threaded our way," writes Basil Hall, "for upwards of a hundred miles amongst islands, which lie in

immense clusters in every direction. At first we thought of counting them, and even attempted to note their places on the charts which we were making of this coast, but their great number completely baffled these endeavours. They vary in size from a few hundred yards in length to five or six miles, and are of all shapes. From the mast-head other groups were perceived lying one behind the other to the east and south as far as the eye could reach. Frequently above a hundred islands were in sight from deck at one moment. The sea being quite smooth, the weather fine, and many of the islands wooded and cultivated in the valleys, the scene was at all times lively, and was rendered still more interesting by our rapid passage along the coast, by which the appearances about us were perpetually changing.

"Of this coast we had no charts possessing the slightest pretensions to accuracy, none of the places at which we touched being laid down within sixty miles of their proper places. Only a few islands are noticed in any map, whereas the coast for near two hundred miles is completely studded with them, to the distance of fifteen or twenty leagues from the mainland. . . . Farther on we passed for a distance of five miles amongst islands, all except the very smallest inhabited. The villages are built in the valleys, where the houses are nearly hid by trees and hedges. The sides of the hills are cultivated with millet and a species of bean; and in the numerous small gardens near the villages we saw a great variety of plants.

"As the peaked island which we had undertaken to climb was steep, and covered with a long coarse grass, it cost us a tiresome scramble to gain the top, which was about 600 feet above the level of the sea. The mainland of Korea is just discernible in the north-east and east from this elevation. But it commands a splendid view of the islands, lying in thick clusters as far as the eye can reach, from north-west quite round by east to south. We endeavoured to count them. One person, by reckoning only such as were obviously separate islands, made their number one hundred and twenty. Two other gentlemen, by estimating the numbers in each connected cluster, made severally one hundred and thirty-six and one hundred and seventy, a difference which at once shows the difficulty of speaking with precision on this subject. But when it is considered that from one spot which, though considerably elevated, was not concentrical, one hundred and twenty islands could be counted, and that our course for upwards of one hundred miles had been amongst islands no less crowded than these, some idea may be formed of this great archipelago." *

Mineral Wealth—Flora and Fauna—Climate.

Amongst the volcanic islands on the coast, Ollonto, the Japanese Matsu-sima, and the Dagelet of European geographers, forms a cone over 4,000 feet high, while its spurs plunge into depths of 4,500 feet and upwards. But the reports of the missionaries throw no light on the geological formation of the highlands on

* "Voyage to Korea," &c. p. 42 *et seq.*

the mainland. Gold, however, is stated to be abundant in several places; but mining operations, both for it and for silver, are forbidden under severe penalties, for fear of exciting the cupidity of the neighbouring peoples. Korea also possesses deposits of lead and copper, although copper and bronze ware are imported from Japan. There are said to be whole mountains of iron ores, which are washed down by the rains in quantities sufficient to supply the smelting works. The forests consist of the elm, willow, birch, pine, spruce, and other Manchurian species, besides some cryptomeriæ and the *Rhus vernicifera,* or lacquer-tree of Japan. But

Fig. 160.—Entrance to the Gulf of Pechili.

Scale 1 : 4,750,000.

the beech and oak are absent. Most of the timber employed in Peking and North China comes from Korea.

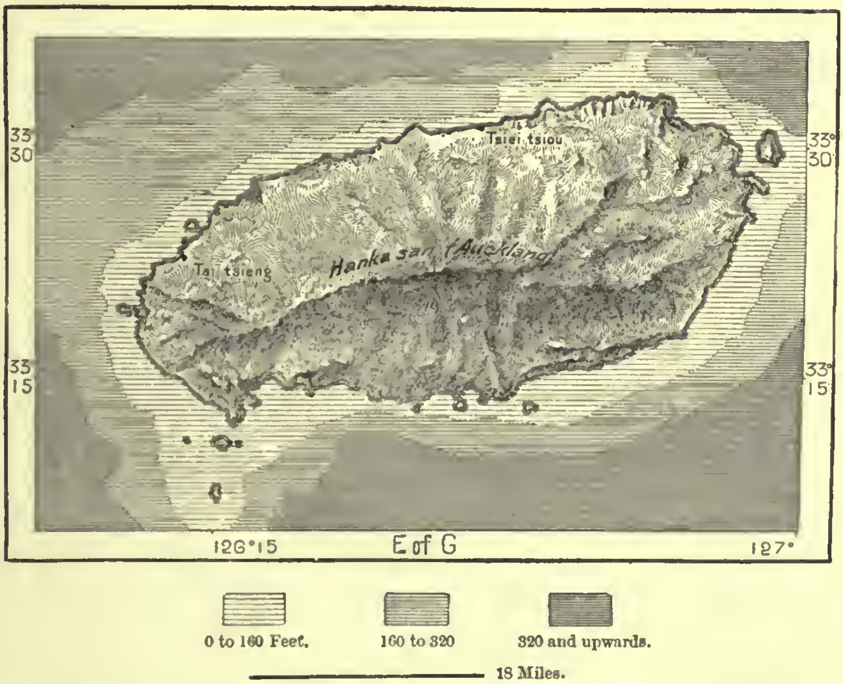
Of great economic importance is the ginseng plant, which is extensively cultivated for the market of China. It is raised from the seed under sheds covered with pine bark, the roots arriving at maturity in about five years, when they are collected, dried, and exported in considerable quantities to Peking. Here the Korean variety, although less esteemed than that of Manchuria, nevertheless commands high prices, ranging from 60s. to 80s. per lb.

The wild fauna includes the bear, tiger, panther, wild boar, and fox, whose skins and furs form the staple exports of the country. In some districts the man-

eating tigers enter the villages, prowl about the houses, and even penetrate through the thatch roofs for their human prey. They are hunted chiefly in winter, when they are often overtaken floundering in the half-frozen masses of snow, and easily dispatched with spears and knives. The Korean horses, imported especially from the island of Quelpaert, are very small, like Shetland ponies; but the oxen, used as mounts, are powerful beasts. Pigs and dogs are very numerous; but the latter are cowardly curs, useless for the hunt, and chiefly bred for their flesh, which is largely consumed, and regarded as a great delicacy. The surrounding waters

Fig. 161.—Island of Quelpaert.

Scale 1 : 900,000.



abound in animal life, and here is taken the species of skate whose skin is used in the manufacture of sheaths.

Although washed by marine waters, the climate of Korea resembles that of China and Manchuria. This is due to the shallowness of the Yellow Sea and Gulf of Pechili, which are rapidly heated and cooled according to the seasons, and which have consequently but a slight influence in regulating the yearly temperature. As on the mainland, the isothermals corresponding with those of Europe are deflected in Korea several degrees south of the latitudes which they cross on the Atlantic seaboard. Thus the mean temperature of France will be found in the south of the peninsula under the same parallels as Gibraltar and Morocco. But while the mean temperature is lower, the extremes are much greater than in Europe, a fact due to the prevalence of cold north-east winds in winter, followed by the warm south-west monsoons in summer. Even in the southern provinces the glass falls

in the cold season several degrees below freezing point, and in the central region a temperature of — 7° Fahr. has been recorded. Thanks to the moist monsoons, there is an abundant rainfall, and every upland valley and lowland plain has its perennial stream. But the peninsula, being divided into two areas of drainage, is too narrow to develop large navigable watercourses, and most of the narrow rapid rivers, being obstructed by reefs, are navigable even for small craft only in their estuaries. The largest are the Yalu-kiang (Amno-kang), or river of the "Yellow Duck," and the Tiumen-ula (Tuman-kang, Mi-kiang), serving for part of their course as frontier-lines towards Manchuria and Russia respectively. Sea-going junks ascend the former for 30 miles, beyond which it is navigable by boats for about 120 miles. The tides are very strong all along the west coast, rising in the Han, or river of Seul, nearly 35 feet, and falling at the turn with surprising rapidity. Even at Fusan, on the south-east side, there is a rise of some 20 feet.

Inhabitants—Language.

According to the census of 1793, Korea contained 1,737,325 houses and 7,140,361 inhabitants, of whom 3,396,880 were males and 3,743,481 females. More recent official returns give about the same numbers, although the unanimous testimony of the natives declares these estimates to be far below the truth, the people having a direct interest in avoiding registration in order to escape the taxes. Dallet thinks the peninsula may have a population of 10,000,000, while Oppert estimates it as high as 15,000,000 or 16,000,000, but very unequally distributed. The northern highlands are almost uninhabited, whereas the fertile and well-cultivated rice-growing districts of the south and west are often densely peopled. In most provinces new villages are springing up, the waste spaces are being constantly reclaimed, the woodlands cleared, and the wild beasts driven to the inaccessible uplands before the ever-advancing colonists. Even on the bleak and rocky east coast the population is often very dense, the villages in some places approaching so close as to form almost continuous towns. Yet the rate of mortality is very high, and many agricultural districts suffer much, especially from the *suito* and other disorders produced by insufficient diet. Small-pox makes even greater ravages than in China, carrying off probably more than one-half of the children, while the natural increase is still further reduced by the almost universal practice of abortion.

The Koreans are in general rather taller than the Chinese and Japanese. Robust and extremely laborious, they are considered excellent workmen in the ports open to Japanese trade, and in the agricultural settlements of Russian Manchuria. The accounts of missionaries and travellers are so contradictory that it seems impossible to form any precise idea of their main physical characteristics. They certainly offer a great variety of types, extending from that usually described as Mongolian to those of Europeans and Malays. One of the extremes, which may be called the continental Asiatic, is distinguished by broad features, prominent cheek bones, oblique eyes, small nose, lost as it were in the fulness of the cheeks,

KOREAN MANDARINS.

thick lips, scant beard, coppery complexion. Another, which may be called the "insular" type, and of which natives of the Liu-kiu Archipelago would seem to be the purest representatives, is characterized by oval features, prominent nose, protruding teeth always visible between the half-open lips, tolerably well-furnished beard, and delicate skin, approaching in complexion to the almost greenish Malay tint. Many are noted for their light chestnut hair and blue eyes, a trait nowhere else observed in the extreme East, except perhaps amongst the aborigines of the Nan-shan uplands in South China. But for the speech and costume, one might often fancy one's self surrounded by Europeans. The women never mutilate the feet, as in China; but one of the Han tribes was formerly accustomed to flatten the heads of the children, while some of the coast people had adopted the practice of tattooing from the Japanese.

These various races, which have become more or less completely fused in the common Korean nationality, are affiliated by Klaproth to the Tungus stock of East Siberia. But the Chinese element is also strongly represented, for the "Three Han," who gave their name to a great part of the peninsula, were descended from natives of Pechili and Shantung, who migrated to Korea in the fourth and fifth centuries of the vulgar era. The various local dialects present very slight differences, from which it would seem that the different ethnical elements have long been fused in one nation. This common speech differs essentially both from Chinese and Japanese. It is a polysyllabic and agglutinating language, with a varied phonetic system, including as many as fourteen vowels and several gutturals and aspirates. In structure it approaches the Ural-Altaic type, while the verbal inflection resembles the Basque in modifying the endings according to the sex and condition of the speakers. The alphabet, said to be over two thousand years old, is at once syllabic and purely phonetic, with altogether rather more than two hundred letters, much simpler than the Chinese ideographs. But the lettered classes despise this orthographic system. The grammars and dictionaries prepared by the missionaries having been burnt during the persecutions, there have hitherto been no available means for the study of this language. But one of the priests, who escaped from the massacres, has recently published a large Korean-French dictionary, and a Korean grammar in French appeared in Tokio in 1881.

The preference given by the lettered classes to the Chinese ideographic system is partly due to its greater convenience for holding communication with the neighbouring nations amongst whom that system is current. "In China, Japan, Korea, and the islands in the adjacent seas the spoken languages are different from one another; the written language, on the contrary, is the same in all. Thus a native of China is unintelligible to a Korean or Japanese while he is speaking, but they mutually understand one another when their thoughts are expressed in writing. The cause of this may be thus explained. We in Europe form an idea in the mind, and this we express by certain sounds, which differ in different countries; these sounds are committed to writing by means of the letters of the alphabet, which are only symbols of sound, and consequently a writing in Europe is

unintelligible to every one who is ignorant of the spoken language in which it happens to be written.

"The Chinese and the other natives in these seas have, on the contrary, no alphabet—no symbols of sound [in general use]. Their ideas are committed to writing at once without the intervention of sound, and their characters may therefore be called symbols of ideas [ideographs]. Now, as the same characters are adopted in all these countries to express the same ideas, it is clear that their writings will be perfectly intelligible to each other, although their spoken languages may be quite incomprehensible.

"The case of the Arabic numerals in Europe furnishes a ready illustration of this symbolical language. There is nothing in the symbols 1, 2, 3, &c., by which their pronunciation can be ascertained when presented to the eye. Yet they communicate meaning independent of sound, and are respectively intelligible to the inhabitants of the different countries of Europe, while at the same time the sounds by which a native of one country distinguishes the written symbols 1, 2, 3, &c., are unintelligible to all the rest." *

The introduction of numerous foreign words, Chinese in the north, Japanese in the south, has given rise to certain jargons current in the trading-places. The Japanese variety is widely spoken in the southern seaports. But the language of culture is Chinese, which all the lettered classes are bound to know. But as spoken in Korea it is as unintelligible to the natives of China as Latin in the mouth of an Englishman would be to the ancient Romans. Every place, person, and object has two names, one a more or less modified Chinese, the other Korean, and these two elements are diversely intermingled in the speech of the different classes. Chinese prevails in the official style, while the national language has been preserved especially in the religious services. The mass of the people use both, in accordance with their various degrees of instruction and social position. According to the missionary Daveluy, the current form in many places consists almost exclusively of Chinese words provided with Korean inflections.

Social Condition—Religion.

Chinese influences altogether preponderate in the Korean civilisation. The administration and usages of the official world are servile imitations of those of the Middle Kingdom, to which Korea is tributary in an intellectual far more than in a political sense. Nevertheless the people have preserved their national customs, which often present a striking contrast to those of the Flowery Land. While in the empire the whole people are regarded as forming but one family, the various sections of the Korean nation constitute real castes. Under the King and his family, the nobles descended from the old tribal chiefs enjoy the privileges of fortune and power in various degrees, according to the class to which they belong. The civil aristocracy, more instructed in Chinese science and letters, monopolizes the higher functions. Next comes the military aristocracy, which takes precedence

* Basil Hall, *op. cit.* p. 17.

of all the nobility of more recent creation. Such is the respect in which the nobles are held, that plebeians must dismount in their presence, scarcely daring to look at, much less address, them. They are exempt both from taxation and military service, and their dwellings serve, like the mediæval sanctuaries, as places of refuge for all their retainers. A class of "half nobles," including the secretaries, translators, interpreters, and other secondary officials, serves as a transition from the full aristocracy to the burgesses, who comprise merchants, dealers, and most of the artisans. Another quite distinct caste is that of the peasantry, pastors, hunters, and fishers, comprising the great bulk of the nation. Then come the "despised" castes, subdivided into several groups, which hold aloof from each other, and which include the butchers, tanners, smiths, and bonzes. Below all is the social substratum of the serfs, belonging, some to the Crown, others to the nobles and burgesses. They have the right of purchasing their freedom, and many marry free women, in which case their offspring belongs to the class of freedmen. They are in other respects treated with kindness, and are in practice scarcely to be distinguished from the ordinary workmen.

Buddhism, which is the official religion, was introduced towards the end of the fourth century of the vulgar era. Rationalism of the Chinese type is professed by the literati, nor has the old animism yet disappeared; while traces are even found of a fire worship, which connects the inhabitants of the peninsula with the Siberian wild tribes. In all the houses the embers are kept alive under the ashes, for were they to be extinguished, the fortunes of the family would be extinguished with them. At the change of the seasons, and at other important periods, the fire must be rekindled from a flame obtained by the friction of two pieces of wood. The official ceremonies associated with the worship of Fo (Buddha) are almost entirely neglected, and the contempt in which the bonzes are held has been extended to the religion professed by them. In many towns and villages there are no temples, nor even any domestic shrines. The statues of the gods and saints are mere blocks of wood set up by the wayside, and as works of art far inferior to the idols of the Polynesians. When one of these gods rots away or gets blown down by the wind, the children amuse themselves with rolling it about, amid the laughter of the passers-by.

Christianity has some adherents in the country. At the time of Taïkosama's conquest the first army corps was commanded by a Catholic prince, with the incongruous title of Dom Austin Konisi Yukinaga. Since then many of the natives have from time to time embraced the foreign religion, and during the present century new communities have been founded by French priests penetrating secretly into the land. At one time the congregations were estimated at about 100,000, including even some members of the royal family. But several fierce persecutions broke out, and in 1866 as many as nine missionaries, together with 10,000 native Christians, were massacred. The French expedition, sent to demand satisfaction, failed to obtain any concessions from the King, and the practice of the foreign religion still remains legally an act of high treason.

Habits and Customs—Trade—Industries.

As in China, polygamy is permitted, although the mass of the people have rarely more than one wife. Marriage is unattended by any long symbolical ceremonies, as in China. On payment of the purchase money the husband carries off his "property," and henceforth treats her as he pleases, for the Korean wife has neither a name nor even a legal existence. Being without responsibilities, she can be neither judged nor punished except in time of rebellion. Although seldom badly treated, the women enjoy still less liberty than in China. Those of the upper classes are confined to an apartment inviolable even to the police, and they are never seen abroad during the day. But in the evening the streets are given up to the women. The men still lingering behind hasten to return home, and should they meet any ladies on the way, they must cross to the other side, and hide their face in a fan. To act otherwise would betray a lamentable want of propriety. Dallet mentions instances of Korean women who committed suicide because strangers had touched them with the tip of their finger. They are said to be distinguished for pretty features and a charming expression.

Funerals are, as a rule, scarcely more solemnly conducted than weddings. In ordinary cases the body is simply placed on a bier, or merely wrapped in a shroud, and buried without any pomp. But the rich and nobles still often conform to the ritual of the Chew, which, owing to its extreme rigour, has fallen into abeyance in China itself. Mourning for parents lasts three years, during which the son must regard himself as dead to the world, renouncing all his functions and ordinary pursuits. Robed in white, he hides his face under a large hat, and wears a long veil or a fan, a custom of which the French missionaries frequently took advantage to move about in disguise. Sons in mourning must also burst out into sobs and groans at a fixed hour three times a day.

While lacking the cunning of the Chinese, the Koreans excel them in courage and in hospitality, to which there are no limits. Honest, simple, and good-natured, they easily form friendships, but keenly resent injuries. Serious and reserved in the presence of strangers, they readily unbend amongst acquaintances, indulging even in dancing and other "frivolities," which the Chinese would regard as worthy only of savages. Theatrical representations, so popular in China and Japan, are unknown in Korea; but the people are very fond of music, and especially of stringed instruments and European airs, which the Chinese, ignorant of harmony, are so slow to appreciate.

An instructive and entertaining account of his first interview with the natives of the islands on the west coast is given by Captain Basil Hall in his "Voyage to Korea." "Shortly after anchoring, a boat came from the shore with five or six natives, who stopped when within 50 yards of the brig, and looking at us with an air of curiosity and distrust, paid no attention to the signs which we made to induce them to come alongside. They expressed no alarm when we went to them in our boat, and on our rowing to the shore, followed us till we landed near a village. The inhabitants came in a body to meet us, forming an odd assembly, different in

many respects from anything we had seen. Their colour was a deep copper, and their appearance forbidding and somewhat savage.

"Some men, who appeared to be superior to the rest, were distinguished by a hat, the brim of which was nearly 3 feet in diameter, and the crown, which was about 9 inches high, and scarcely large enough to admit the top of the head, was shaped like a sugar-loaf with the end cut off. The texture of this strange hat is of a fine, open work, like the dragon-fly's wing. It appears to be made of horse-hair varnished over, and is fastened under the chin by a band strung with large beads, mostly black and white, but occasionally red and yellow. Some of the elderly men wore stiff gauze caps over their hair, which was formed into a high conical knot on the top of the head. Their dress consisted of loose wide trowsers, and a sort of frock reaching nearly to the knee, made of a coarse, open grass cloth, and on their feet neat straw sandals. They were of the middle size, remarkably well-made and robust-looking.

"At first they expressed some surprise on examining our clothes, but afterwards took very little interest in anything belonging to us. Their chief anxiety was to get rid of us as soon as possible. This they expressed in a manner too obvious to be mistaken; for, on our wishing to enter the village, they first made motions for us to go the other way; and when we persevered they took us rudely by the arms and pushed us off. Being very desirous to conciliate them, we showed no impatience at this treatment; but our forbearance had no effect, and after a number of vain attempts to make ourselves understood, we went away, not much pleased at their behaviour.

"On leaving these unsociable villagers, we went to the top of the highest peak on the island, whence we were able to look down on the village without ourselves being observed by the natives. The women, who had deserted the place on our landing, had now returned. Most of them were beating rice in wooden mortars, and they had all children on their backs. The village consists of forty houses, rudely constructed of reeds plastered with mud; the roofs are of all shapes, and badly thatched with reeds and straw, tied down by straw ropes. These huts are not disposed in streets, but are scattered about without order, and without any neatness or cleanliness, and the spaces between them are occupied by piles of dirt and pools of muddy water. The valley in which this comfortless village is situated is, however, pretty enough, though not wooded. The hills forming the valley are of an irregular shape, and covered at the top with grass and sweet-scented flowers; the lower parts are cultivated with millet, buckwheat, a kind of French bean, and tobacco, which last grows in great quantities.

"We saw bullocks and poultry; but the natives would not exchange them for our money, or for anything we had to offer. They refused dollars when offered as a present; and, indeed, appeared to set no value upon anything we showed them, except wine glasses; but even these they were unwilling to receive. These people have a proud carriage, with an air of composure and indifference about them, and an absence of curiosity, which struck us as being very remarkable. Sometimes when we succeeded, by dint of signs and drawings, in expressing the nature of a

question, they treated it with derision and insolence. On one occasion, being anxious to buy a clumsy sort of rake made of reeds, I succeeded in explaining my wish to the owner, one of the lowest class of villagers. He laughed at first good-humouredly, but immediately afterwards seized the rake, which was in my hand, and gave it a rude push towards me, with a disdainful fling of the arm, accompanying this gesticulation by words, which seemed to imply a desire to give anything upon condition of our going away. One man expressed the general wish for our departure by holding up a piece of paper like a sail, and then blowing upon it in the direction of the wind, at the same time pointing to the ships, thereby denoting that the wind was fair, and that we had only to set sail and leave the island." *

Being almost closed to foreign markets, the country produces little beyond what is needed for the local demands. As in China, the staple food is rice, besides which wheat, millet, maize, and all sorts of fruits and vegetables are cultivated. But the watery climate deprives the fruits of their flavour, as it does the flowers of their perfume. Cotton, introduced about five hundred years ago, is widely cultivated, and ginseng forms an important item in the contraband trade across the border. Tea grows wild in the south, but is little cultivated; this beverage being almost restricted to the upper classes. The vine also yields choice grapes, from which no wine is made; but tobacco is largely grown on the uplands, which also produce millet and hemp.

Two thousand years ago masters of the Japanese in most arts, the Koreans now excel only in the manufacture of certain arms, and of paper prepared from the pulp of the *Brussonetia papyrifera*. They weave and dye linens and cottons, but not woollen stuffs, which would be so useful in the cold season. Silks are imported from China; but the superb conic head-dresses, with upturned brims about a yard broad, are chiefly produced in the island of Quelpaert, from bamboo fibre dyed yellow or black-lacquered. The native houses are mostly mere mud hovels raised on piles and thatched with rice straw. In the towns the finest buildings resemble those of Japan in their structure and fittings. Work being held in dishonour, misery is very general. For the upper classes, usury and legalised plunder of all sorts are almost the sole means of existence.

"From these and other causes, the Koreans are often reduced to such distress that they are driven to cross the frontiers into Russian territory, where the characteristics of the race may be more conveniently studied than in the country itself. The extensive floods and famine of the year 1869 compelled so many to take refuge in the neighbouring lands that their further immigration was prohibited by the Russian Government. Some of the unfortunate fugitives were escorted back to Korea, where they were decapitated, the sentence of death being the penalty attached to all leaving the country without permission.

"Those who are settled in Vladivostok are described as very industrious. They dress in white, and tie up their hair in the shape of a horn. Their summer-hats resemble those of the Gilyaks, except that they are hexagonal instead of circular. I went into some of their houses, the walls of which were of mud plastered on a

* *Op. cit.* p. 2, *et seq.*

framework of straw. The floor was of beaten earth, with a mud fireplace in the centre, and a divan round the walls. In the best houses the wife had a separate apartment. Fire burns in the centre by day, and the flues under the divan are heated morning and evening. The people live on millet and rice, and use a spoon of bronze with a nearly circular flat bowl. Taking one from a man who was eating, I presented the spoon in one hand and a silver coin in the other, intimating that I wished to buy; and when he had taken the coin the master of the house came up, and, receiving from me the spoon and from the man the coin, he graciously returned them both, implying that he *gave* me what I desired." *

Till quite recently most of the foreign trade was carried on by smuggling; but in 1876 the Japanese succeeded in obtaining the right of residence in their old factory of Fusan on the south coast, which has since grown into a respectable town, with some 3,000 inhabitants in 1878, and, amongst other public buildings, a temple raised to the honour of the old Japanese conquerors of the land. Its exports consist mainly in rice and raw silks, and its trade has increased nearly eightfold in three years. It is now connected by a fortnightly steam service with Nagasaki. Another concession was made to Japanese diplomacy in 1880, when the port of Gensan, 12 miles south of Lazarev, was thrown open to their trade. Its harbour is deeper and better sheltered than that of Fusan, and it has already begun to do a brisk traffic in peltries, tobacco, gold dust, and "sea cabbage." Encouraged by these successes Japan has become more importunate in her demands, but all efforts of other powers to obtain a footing in the country have hitherto failed.

Government—Administration.

In Korea, the Sovereign is absolute master of his subjects, who render him almost divine honours. It is high treason to utter his name or to touch his person, while to be touched by him is regarded as a priceless honour; those who have been so privileged adorn with a red ribbon the part of their dress sanctified by the royal finger. A mere movement of this finger suffices for a disgraced minister to drink the poisoned cup. Although, as in China, the King is attended by an official censor, the chief duty of this functionary is to sing the praises of his Majesty. In the capital, a school of design is exclusively devoted to training artists occupied in reproducing his sacred features. Yet all this absolute power, unlimited by the laws, is a pure fiction, for the nobles, like the Japanese daimios of old, are the real rulers of the land. For fear of seeing them all combine against the throne, the Sovereign dare not aim a blow at any of their privileges.

Officially the administration is a copy of that of China; and Seul, the capital, is still inspired from Peking. On the anniversary of the Emperor's birth, as well as on the new year and at the equinoxes, the King of Korea, surrounded by his family and courtiers, prostrates himself publicly in the direction of Peking. When he sends an envoy to the Imperial Court, he kneels four times and burns incense;

* H. Lansdell's "Through Siberia," 1882, ii. p. 339.

and his letter of homage is borne in a palanquin of honour draped with yellow curtains. He also receives the Imperial ambassador in the attitude of an inferior, while his consort receives from Peking the official permission to assume the title of Queen. At the King's death social life is suspended for twenty-seven months, during which period sacrifices, marriages, and burials are interdicted, the course of justice is arrested, and all human and animal life must be respected.

Next to the King, the most important person is the "favourite," chosen from the nobles or ministers. Through him all favours and penalties are dispensed, and without his advice nothing of moment is transacted. The Supreme Council of State consists of nine members, three of the first order, the "Chief of the Just Government," the "Just Governor of the Left," and the "Just Governor of the

Fig. 162.—Han-kang, or Seul River.
Scale 1 : 600,000.

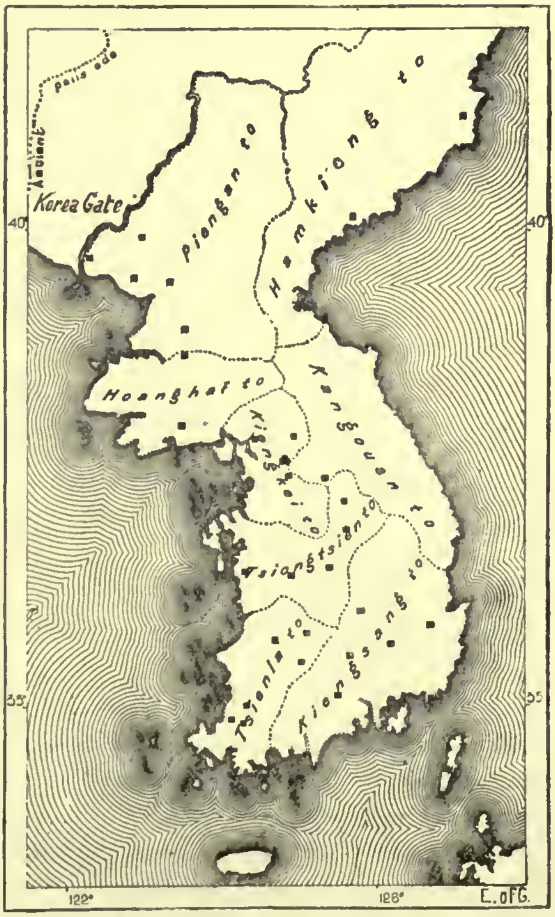
12 Miles.

Right;" six of the second order: the ministers of ranks and degrees, of finance, rites, war, justice, and public works. According to the regulations all the mandarins ought to belong to the lettered class, receiving their promotion, as in the Middle Kingdom, by a series of three competitive examinations conducted in the Chinese language. But these regulations have long been a dead letter, and functions are now openly sold to the highest bidder. The penal code, also modelled on that of China, has fortunately been considerably modified, thanks to the natural gentleness of the people. Prisoners are often temporarily released to take part in the feasts of the family or of the new year. Great honours are rendered to old age, and at certain times septuagenarians are entertained by the King; while the Queen gives a private reception to a deputation of virtuous wives and daughters. But

notwithstanding all this, and in spite of many beneficent provisions for the protection of the people, they continue none the less to be oppressed, crushed by taxes, and exposed to famine and misery. The famine of 1877-8 is said to have carried off a million of Koreans, or about one-eighth of the whole population.

The army, theoretically comprising all able-bodied men, or about a million altogether, consists in reality of a very small number of combatants. Before the opening of Fusan to Japanese trade the only weapons were spears, swords, and matchlocks of the sixteenth century type. At present the Government imports rifles from Nippon, and manufactures others on the same model. The guardsmen of Seul are drilled by Japanese officers, and gunboats of the latest description have been purchased in Japan. On critical occasions the tiger-hunters are called out, and these were the men pitted against the French in 1866. Till recently the guard wore coats lined with thick wadding, and said to have been proof against musket shots and sword cuts. But this uniform was so cumbrous that it greatly impeded the free and rapid movement of the men. A considerable force of native troops, equipped in this way, would have been almost at the mercy of a handful of well-armed, and efficiently commanded European soldiers.

Fig. 163.—Administrative Divisions of Korea.
Scale 1 : 10,000,000.



120 Miles.

Topography.

Hanyang, or *Hanchung-fu*, better known by the name of Seul, or "Capital," is the seat of the Administration and the royal residence. It is a large city, built on no particular plan, and surrounded by a wall nearly 6 miles in circumference. According to the census of 1793 it had a population of 190,000, but modern writers estimate it at 100,000 or 150,000. Well situated at the southern foot of the Hoa-shan and west of the Kwan-ling chain, which shelters it from the cold north-east winds, it is enclosed southwards by a bend of the Han-kang river, which

is here crossed by a stone bridge. Towards the north-west the river gradually develops the estuary of the Po-haï on the Gulf of Pechili, with which it communicates through two channels north and south of the large island of Kanghoa. But they are accessible only at high water, and according to the pilots all craft have to anchor 12 miles below Seul. The capital contains no conspicuous buildings except the vast royal palace and the academy, which is attended by five hundred students.

The approaches of Seul are defended by four strongholds, including Kanghoa, which has a population of 15,000 or 20,000. In the neighbourhood is the royal borough of Sou, at once the Windsor and Westminster of Korea, where the kings are reported to be buried in "golden coffins." In 1868 some American and German adventurers entered the country secretly, for the purpose of carrying off the treasures of this necropolis, but being discovered in time they were driven off by the peasantry.

Sunto (*Siongto, Kaïseng, Kaechang*), the ancient capital, destroyed by the Japanese towards the end of the sixteenth century, has again acquired great importance as a trading place. Lying nearer to the coast than Seul, it is more accessible to foreign shipping. A still more ancient capital was *Pinyan* (*Piengan*), one of the chief cities of the north-west province. Like its neighbour, *Ichu*, near the mouth of the Yalu-kiang, it enjoys a considerable local traffic. In the extreme south the chief emporium is *Taïku* (*Daïkio*), where are held two large annual fairs, at which the imports from Japan are distributed.

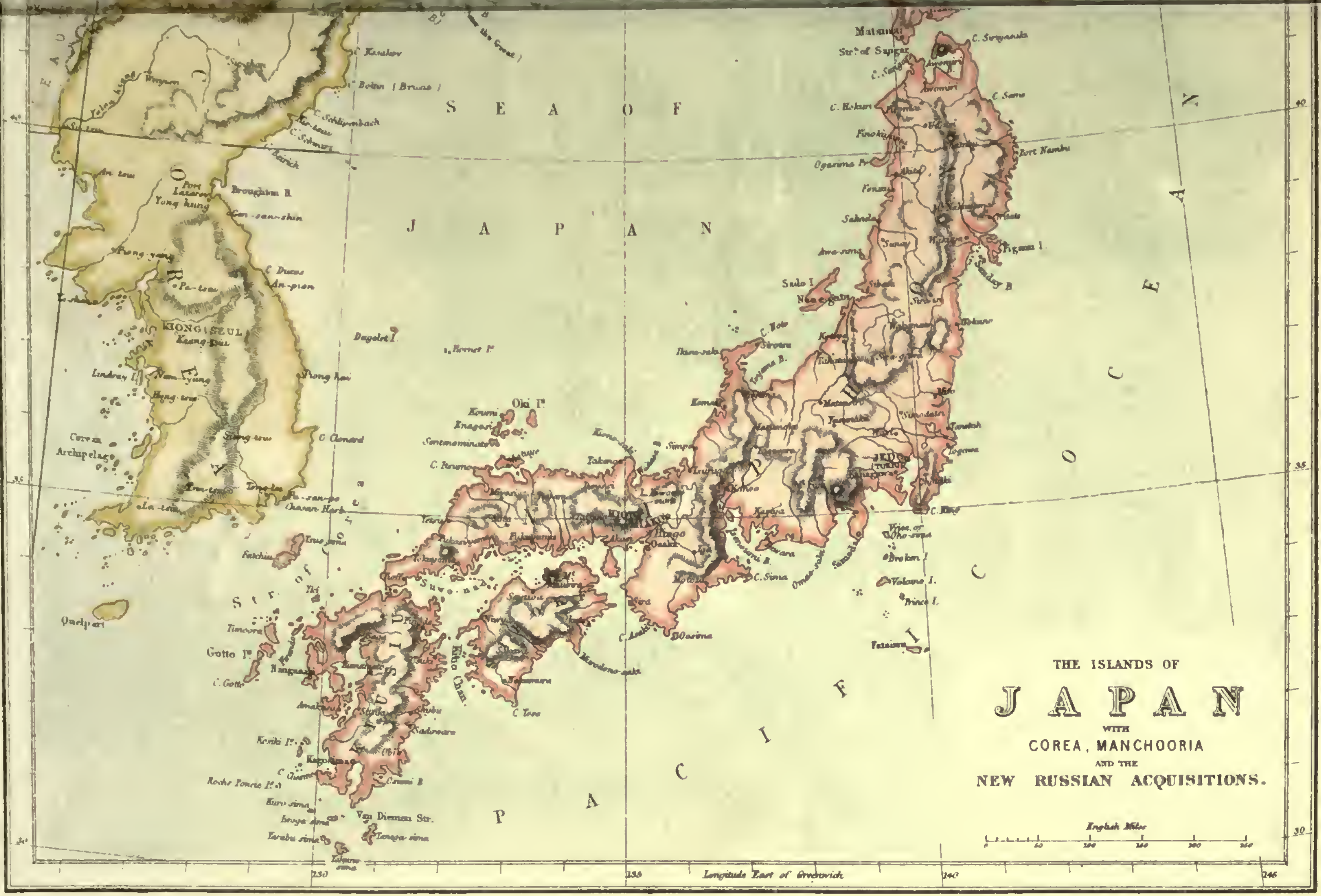
According to an official geography, partly translated by Dallet, there are altogether one hundred and six walled towns in the kingdom.

Korea is divided into eight provinces, all bearing Chinese names, and each again subdivided into circuits and districts. Communal interests are intrusted to the Council of Elders, who, in the more remote villages, enjoy a certain degree of independence.

At the end of the volume will be found a table of the eight provinces, or *to* ("routes"), as they are called, with their chief towns.

Since these sheets were passed through the press, news has reached Europe that Korea has at last been induced to remove the barriers of exclusiveness by which she has hitherto been shut out from the rest of the world. In the month of June, 1882, the Government of Seul concluded commercial treaties both with the United States and England, granting to these States equal privileges and "all the advantages of the most favoured nations." By one of the clauses of the treaty with England, the importation of opium is expressly forbidden.

SEA OF OKOTSK
RUSSIAN TERRITORY
(SINCE 1847)
MANCHOORIA
SAGHALIEN
(RUSSIAN)
Gulf of Tartary
YESSO
La Perouse Strait
Shantarsk I.
Gulf of Amoor
R. Amoor
Line of Frontier between Russia & China in 1848
R. Soongari
C. Disappointment
Patience B.
Aniwa B.
C. Notoro
C. Soya
Nikolaievsk
Khabarovka
Blagoveshtchensk
Ilchuri alin



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CHAPTER VII.

JAPAN.

ALTHOUGH comprising thousands of islands and islets, Japan is a very small state compared with its great neighbour, the vast Chinese Empire, of which it looks like a simple geographical dependence. But notwithstanding its limited size, Japan is one of the most interesting countries in the world, both as regards its physical features, its inhabitants, history, and especially the transitional state through which it is now passing. Of all non-European nations the Japanese alone have fully and spontaneously accepted the culture of the West. They alone have honestly endeavoured to adopt all its manifold material and moral conquests. They had not the misfortune, like so many other peoples, of first losing their political independence, and then reluctantly accepting the culture of their conquerors. Nor has the supremacy of a foreign religion grouped them together, like a flock of sheep, in the fold of their evangelisers. Thus enjoying full political and religious liberty, they have adopted European ideas, not as subjects, but in the character of free disciples. As they had formerly endeavoured to enter the Chinese world of thought and culture, they are now essaying, with a certain youthful ardour, to assimilate themselves to the West; whereas the Chinese themselves, proud of their ancient civilisation, conscious of their latent strength, and distrustful of those "foreign barbarians" who came bombarding their cities and burning their palaces, accepted the teachings of the stranger with much hesitation, and under the pressure of irresistible events. Whatever be the success of the experiment, Japan henceforth belongs, in all that regards scientific knowledge and industrial progress, to the comity of those nations amongst whom has been developed the so-called "Aryan" or "Western" culture. These peoples, who, at the opening of the present century, numbered collectively, perhaps, one hundred and fifty millions of human beings, now comprise as many as five hundred millions, distributed over Europe, the New World, parts of Africa, Australia, and Asia itself.

The geographical position of Japan adds a special value to this new accession to their numbers. Lying midway between San Francisco and London by the route

of the Pacific and Russia, the Empire of the "Rising Sun" completes the zone of lands brought within the sphere of Western ideas in the northern hemisphere. It enables East and West to join hands, while by sea it commands all the highways leading towards Malaysia, Australia, Indo-China, and the lands bordering on the Indian Ocean and Pacific seaboards. Its population is, moreover, sufficiently large and industrious to enable it rapidly to acquire an important position in the general movement of commerce and modern history. Nippon is already familiarly spoken of as the "Great Britain" of the extreme East.

Form—Extent—Name.

The Japanese Archipelago forms a perfectly limited geographical whole, at least if in it be still included the island of Sakhalin, taken by Russia in 1875 in exchange for the Kurile group; for Sakhalin obviously constitutes the northern section of a long chain of elevated lands continued through Yeso and half of Hondo south-eastwards to the Ogasavara (Bonin) Archipelago. Towards the north-east this axis, which stretches for about 1,800 miles nearly in a line with the meridian, throws off the gently curved group of the Kuriles, connecting the volcanic area of Yeso with that of Kamchatka. But in the extreme East all lands, the continental coastlines no less than the insular groups, uniformly affect this curvilinear disposition. Hondo itself, the chief island in Japan, describes a curve whose convex side, like that of the Kuriles, faces seawards. Further south the Liu-Kiu (Riu-kieu) Archipelago is traced in the same way between Kiu-siu and Formosa. Japan thus consists altogether of a longitudinal axis and of three arcs following successively in the direction from the north-east to the south-west. The south side of Yeso about Volcano Bay, the Nik-ko highlands in the main island, and the central uplands in Kiu-siu, form so many nuclei at the intersection of these various lines, and it is precisely at these points of intersection that the most active centres of the igneous forces are found.

The three curves of the Kuriles, Hondo, and Liu-Kiu rise above the deepest known oceanic waters. But on their west side they are separated from the mainland only by superficial cavities. Through Sakhalin, Japan, so to say, touches the continent; while through Kiu-siu and the intermediate island of Tsu-sima it approaches Korea in waters nowhere more than 400 feet deep. A profound trough is developed only between the Gulf of Tartary and the two straits of Tsu-sima, where the sounding line has recorded 1,500 fathoms near Cape Kozakov on the north-east coast of Korea. Towards the middle of the Sea of Japan still greater depths probably occur.

Independently of the Kurile and Liu-Kiu groups, Japan proper consists of four large islands: Yeso or "Land of the Barbarians," Hondo, Sikok or the "Four Provinces," and Kiu-siu or the "Nine Districts;" besides countless islands and islets, some attached to the adjacent coast by submarine banks, some rising as volcanoes above deep waters. The native geographers often speak of 3,850 islands, but even this number does not include all the reefs and rocks fringing the coasts.

One of the native names of the archipelago is Oho-ya-sima, or "Eight Large Islands;" Sado, Tsu-sima, Oki and Iki in the Sea of Japan, and Avadzi in the Inland Sea, being also included amongst the main islands. On the other hand, Yeso is not reckoned, being till recently regarded as a foreign land. The main island of Hondo, or Hontsi, that is, "Chief Land," called also Tsiudo or "Central Land," and Naïtsi or "Interior Land," is more commonly designated in Europe

Fig. 164.—Curves of the Japanese Archipelago.
Scale 1 : 30,000,000.

by the name of Nip-pon, or Ni-hon. But this term, meaning the "Rising Sun," in reference to the position of Japan east of China, belongs properly to the whole archipelago, and is always so used by the natives. It is the Ji-pön-kweh of the Chinese, whence Marco Polo's Zipangu, or Zipang, transformed by the Malays into Zipang and by Europeans into Japon, Japan.

The history of this word Japan is extremely curious and interesting. It is not merely synonymous, but absolutely identical with the corresponding native term

Nip-pon. "The original Chinese form was Nit-pön, meaning the Land of the Rising Sun, the Orient, from *nit*, sun, and *pön*, origin. The word was in this form adopted about the seventh century of the Chistian era by the Japanese, who soon assimilated the *t* to the *p*, whence *Nip-pon*, *Nip-hon*, and even *Nif-hon*. But in China the *t* was first dropped, whence *Ni-pön*, or *Ni-pen*, and the initial *N* through Mongolic influence,* afterwards changed to *J*, whence Ji-pen, the form current in the time of Marco Polo, whose Venetian *Zipanga* derives directly from it, and is the parent of all the European varieties of the word *Japan*. This word was, as stated, from the first applied to the whole archipelago, and not exclusively to the large island, for which the Japanese had no general name till that of Hondo, that is, Original, or Main Division, was introduced some six years ago. Hence in our maps *Nip-pon* ought to be either altogether suppressed or extended to the whole group—that is, made synonymous with *Japan*, both being varieties of the common prototype Nit-pon." †

Progress of Discovery.

Japan was first reached in 1543 by the Portuguese navigators Mendez Pinto, Diego Zamaito, and Borrallo, driven by stress of weather to the island of Tanega, south of Kiu-siu. They were well received, commercial relations were established between Japan and Malacca, and marriages were even contracted between the strangers and some wealthy native women. But the missionaries soon made their appearance, and religious wars had already broken out before the close of the sixteenth century. The Christians were ultimately expelled or massacred, and the country closed to all Europeans except the Dutch, who were allowed to retain their factory of De-sima, near Nagasaki, on the condition of spitting or trampling on the cross. Confined to this remote corner of the archipelago, the Dutch found opportunities to study the natural history of the country and the manners of its inhabitants, and the great works of Kämpfer and Siebold still rank amongst the most valuable documents we possess on the Empire of the Rising Sun.

Even the geographical works published by the natives themselves during the eighteenth century bear evident traces of European influences. On a general survey of the land, begun in 1778 and concluded in 1807, the learned Yino prepared a map of the islands on a scale of 1 : 500,000, in which he endeavoured to reconcile the observations of the natives with the contour of the seaboard as traced on the Dutch charts. Towards the end of the eighteenth century Mogami Tokoudaï had already explored and described the Kuriles, and the islands off the south-west coast of Japan had been visited by the two brothers, Simo-dani. Lastly, Mamiya Rinzo surveyed the coast of Manchuria, and by sailing through the strait between Sakhalin and Siberia, which now bears his name, proved Sakhalin to be an island, thus solving a problem which had successively baffled La Pérouse, Broughton, and

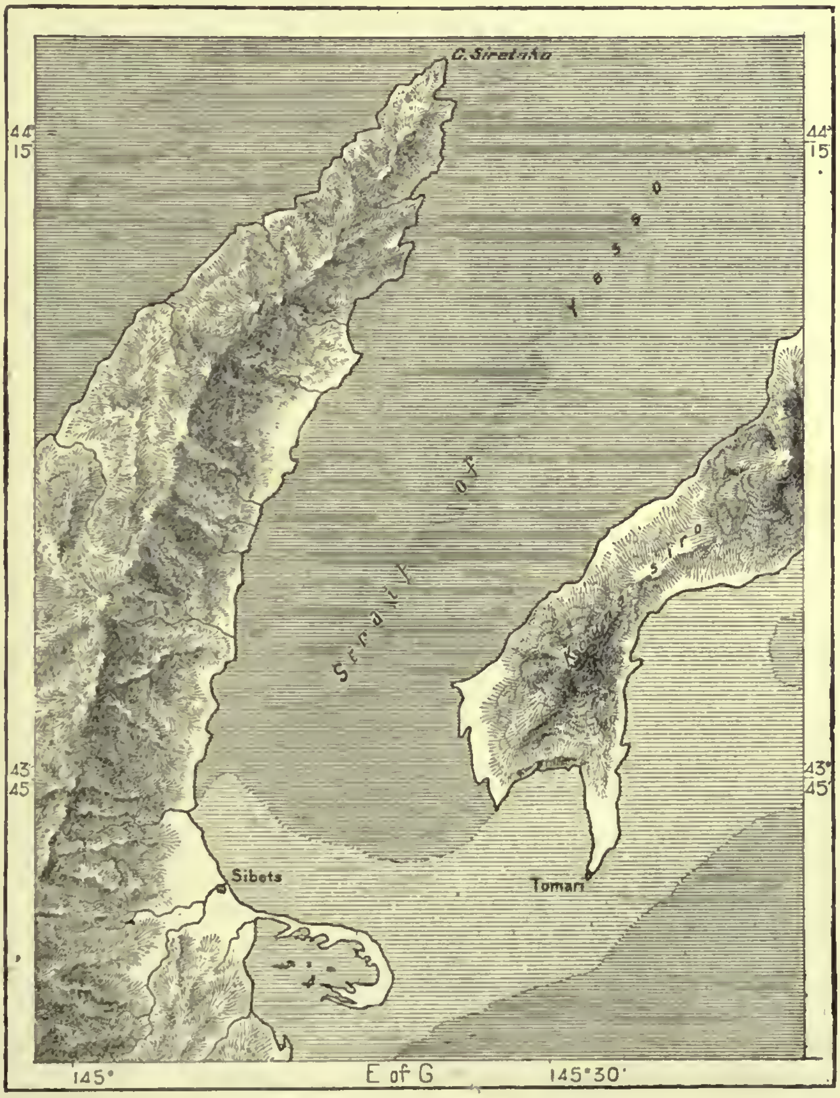
* During the Yen, or Mongol dynasty (1260—1366), the Mandarin or court language was greatly influenced by the Mongol phonetic system.

† A. H. Keane's "Asia," p. 609.

Krusenstern. "The Japanese have vanquished me," exclaimed Krusenstern, on hearing the news of Mamiya Rinzo's success. In 1811, when the Russian traveller Golovnin was detained a captive by the Japanese Government, Rinzo and other

Fig. 165.—Strait of Yeso.

Scale 1 : 650,000.



0 to 64 Feet. 64 Feet and upwards.

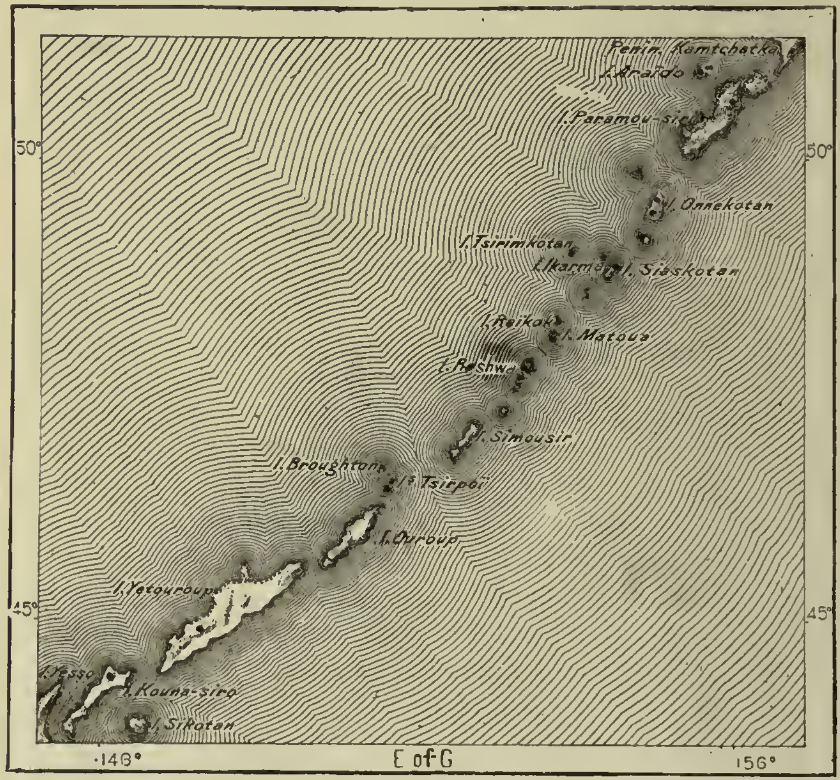
12 Miles.

savants, who were already familiar with the ordinary methods of determining latitudes and longitudes, acquired from him the art of calculating longitudes directly by observation of the stars, and solar and lunar distances.

Since the recent changes foreigners and natives are working harmoniously together in the exploration of the country. On the seaboard the Japanese navy, jointly with those of other powers, takes part in the preparation of special charts, while geologists and mining engineers study the relief of the land and the character of the rocks. Several maps of Nip-pon have thus been already prepared, which are superior in accuracy to those of Albania, Macedonia, and other parts of Europe. Altogether the people display a surprising love of geographical studies. Traders, excursionists, and artisans seldom make a trip without taking a map of the district

Fig. 166.—The Kurile Islands.

Scale 1 : 9,000,000.



• Volcanoes.

180 Miles.

with them, and guide-books to the large cities and famous sights of the land are both more ancient and far more numerous than in Europe.

The Kurile Archipelago.

The chain of partially submerged mountains forming the Kurile Islands develops a curve of almost mathematical precision some 400 miles in extent. Separated from Kamchatka by a strait scarcely 8 miles wide and 60 feet deep, the "Thousand Islands" (Tsi-sima), as the Japanese call the group, begin with the volcanic Sumchu, followed by the long and mountainous island of Paramushir, which forms

geographically the true termination of Kamchatka. But south of Paramushir a

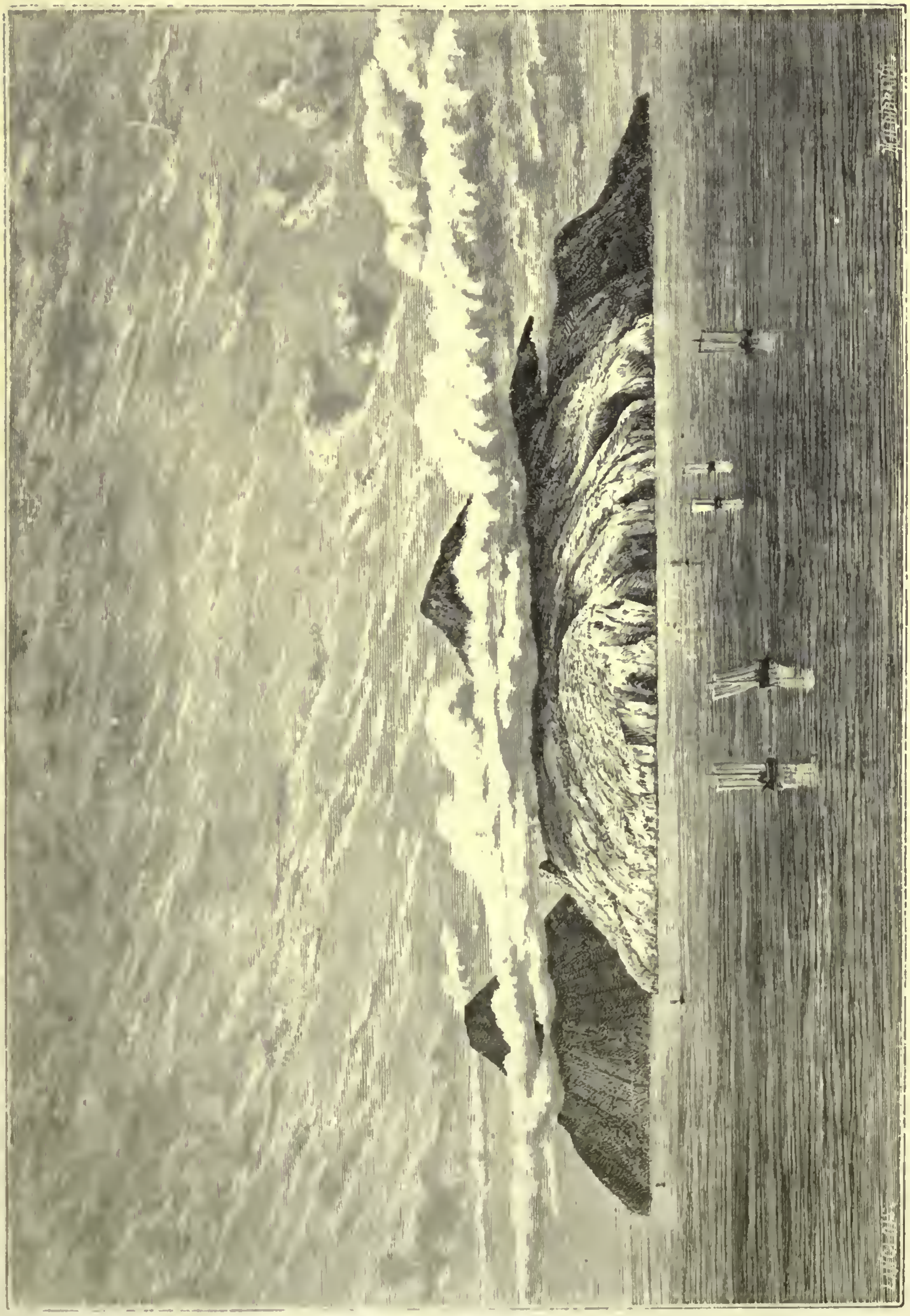


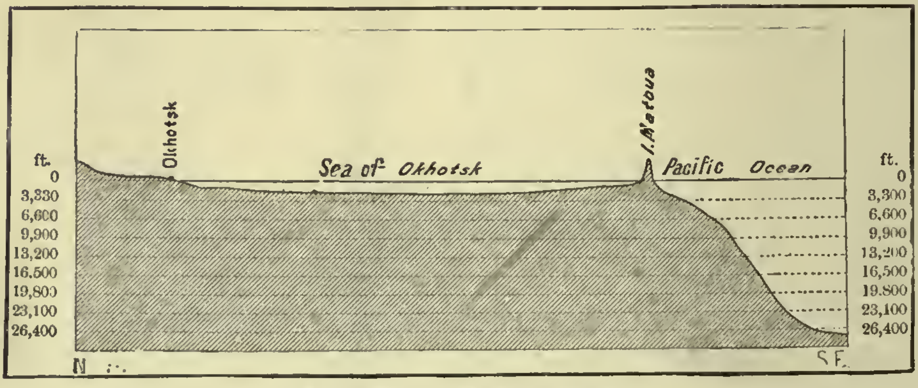
Fig. 167.—Paramushir Island—Kuriles.

broad strait, connecting the Pacific with the Sea of Okhotsk, completely cuts off Onnekotan, Haramukotan, Siaskotan, Matua, Rashua, Simusir, and other smaller

islets, which are the upheaved cones of mountains rooted in the depths of the ocean. Beyond these a continuous chain, broken only by narrow channels, is formed by the remaining islands of Urup, Yeturup, the largest of all, being nearly half the size of the whole archipelago,* and Kunasiro, also a considerable island, projecting far into the bay at the northern extremity of Yeso. The two last named, together with the neighbouring Sikotan, belonged politically to Japan, even before the treaty by which she acquired the whole group, and here is consequently the hamlet or "station" of Tomari, administrative capital of this almost uninhabited and little known archipelago. Such is the uncertainty of its nomenclature, that it is impossible to gather from the confused accounts of explorers the number of its active volcanoes. Milne reckons as many as fifty-two, of which the highest is the snowy Alaïd (Araïdo), on the north-west side of Paramushir, variously estimated from 12,000 to 15,000 feet. There appear to be two on Yeturup, and three on Onnekotan; and earthquakes are also frequent, causing shipping disasters in its

Fig. 168.—Section of the Sea of Okhotsk.

Scale 1 : 20,000,000.



Scale of Depths 50 times that of Distances.

300 Miles.

surrounding waters, or drying up the springs on the islands. Immediately east of the archipelago the Pacific attains depths of 8,000, 10,000, and even 15,000 and 20,000 feet, while on the west side the Sea of Okhotsk nowhere exceeds 2,600 feet. The Kuriles would thus seem to form a sort of advanced scarp of the mainland towards the great depression of the Pacific Ocean.

The Island of Yeso.

The surface of Yeso is characterized by numerous irregularities in its general relief. The main axes, continuing to Sakhalin southwards and the Kuriles south-westwards, are fused together in the square mass of Yeso, where they break into irregular ridges, everywhere eroded by running waters, and presenting much uncertainty in their general direction. The most regular chain is developed

* Area of the Kuriles: 5,930 sq. miles; of Yeturup: 2,750 sq. miles.

parallel with the southernmost of the Kuriles, terminating in Cape Siretoko at the extremity of the long peninsula, which has an absolute elevation of 5,480 feet. Further south the Solfatara of Itasibe, or Devil's Mountain, rises some 3,000 feet higher, while the range falls gradually towards the interior. But the Tokatsi-take and other culminating points of the island towards the south-east, within 30 miles from the Sea of Okhotsk, have an altitude of over 8,300 feet.

Fig. 169.—Tsugar Strait, between Yeso and Hondo.

Scale 1 : 750,000.

0 to 30 Feet. 130 to 650 Feet. 650 Feet and upwards.

15 Miles.

From this district the largest rivers, the Tesiho, Naka-gava, Isikari, and Tokatsi, diverge towards the north-west, the south-west, and south.

Yeso is evidently one of the oldest upheaved lands on the globe. It is everywhere deeply furrowed by the action of running waters, and nearly all the lacustrine cavities have had time to be drained except near the coast, where a few more recent lakes have been formed near the volcanoes, by which the primitive

relief of the land has been diversely modified. These lakes lie altogether in the east and amid the uplands, stretching, like a vast amphitheatre, around Volcano Bay, at the south-west corner of the island. The relief has also been modified by considerable upheavals due probably to igneous forces. Some of the highest mountains are volcanoes, conspicuous amongst which is Risiri, or Delangle Peak, rising near the north-west angle to a height of 6,000 feet. The volcanoes run mainly north-east and south-west, in continuation of the main axis of the Kuriles, and here the igneous rocks consist chiefly of trachytes, basalts, and more recent, lavas. The most recent eruptions that have occurred in Yeso were those of Komaga in 1852 and 1856, and Tarumaï in 1867 and 1874. Komaga is said to have been much higher before the outbreak of 1852, when the upper cone fell in, and the ashes were wafted by the winds to the Kuriles, the nearest of which lies 260 miles to the north-east.*

Notwithstanding its proximity to Nip-pon, Yeso does not appear to have been connected with the southern island, during recent geological epochs. The shortest distance between them is only about 11 miles and the greatest depth scarcely more than 120 fathoms. Yet no soundings seem to point at the former existence of a connecting barrier, while a comparison of the flora and fauna on the opposite sides of the intervening Tsugar Strait shows that they must have been separated for a vast period of time. In the southern portions of Yeso, the woods are almost wholly composed of hard wood, whilst in Nip-pon conifers are abundant. In Nip-pon we find a sheep-faced antelope or goat, a monkey, and a black bear, none of which exist in Yeso. The avifauna of the two islands also present several striking points of contrast. Thus the jays and woodpeckers are of different species, and in Yeso there is a birch grouse which is not to be found in Nip-pon, while ptarmigan and pheasants are confined to the southern island. Hence Milne concludes that the two lands have not been connected for many ages.†

The Mainland of Hondo.

In the main island of Hondo, which is separated from Yeso by the narrow Tsugar or Matsmayo Strait, most of the ranges run parallel to each other in the direction from the north-north-east to the south-south-west, and are here and there blended together by side branches, transverse ridges, and lines of volcanic eruption. Nearly all the peaks over 6,500 feet in height are volcanoes, whose lava streams have been at different epochs diffused over the granites and schists constituting the backbone of the archipelago. The ashes ejected by the craters, and carried by the winds to every part of Hondo, have contributed, with the alluvia, to form the soil of the limited low-lying tracts. For most of the land is

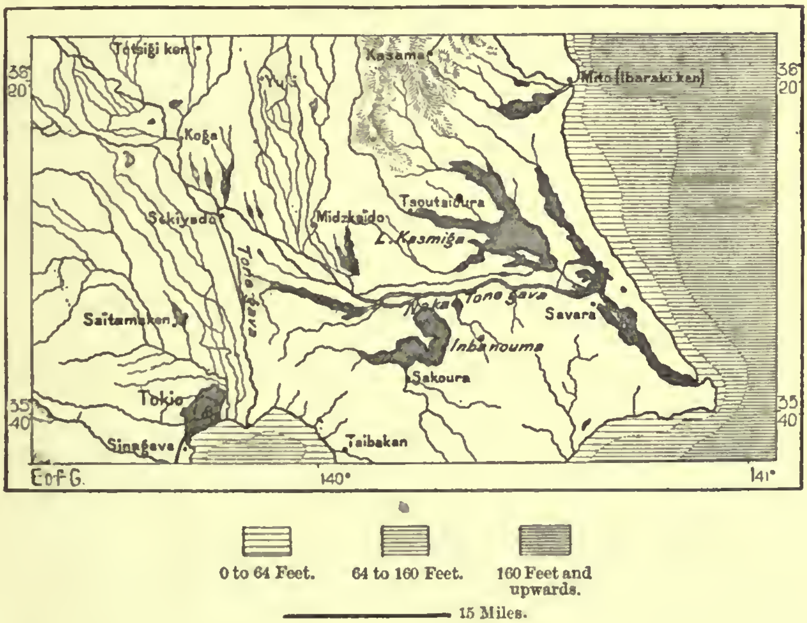
* The chief elevations of Yeso are:—

	Feet.		Feet.
Hasibe Oni	8,620	Yebosi Dake	6,009
Tokatsi-Take	8,300	Utsiura	4,300
Yuvari Dake	8 100	Yezan	4,220
Sappuro-Take	6,600	Tarumai	3,000
Siribetz-Take	6,100	O'Akan	2,000

† "The Stone Age in Japan," in *Journal of Anthrop. Institute*, May, 1881.

everywhere broken by a succession of hills and dales, so that the combined area of all the plains scarcely exceeds one-eighth of the whole surface. The mountains, however, are generally rounded off and of easy access, seldom presenting those rugged crags and precipitous heights characteristic of most Alpine regions. The almost total absence of sandstones and limestones, which tend to become broken into vertical masses, the copious rainfall, and the natural richness of the vegetation, have given to the Japanese landscapes a preponderance of gently undulating lines, and moderately sloping valleys watered by rapid but winding streams. Here and

Fig. 170.—Mouths of the Tone-gava.
Scale 1 : 840,000.



there the higher crests are streaked with lines of perennial snow, which, according to Milne, in some places develop miniature glaciers.

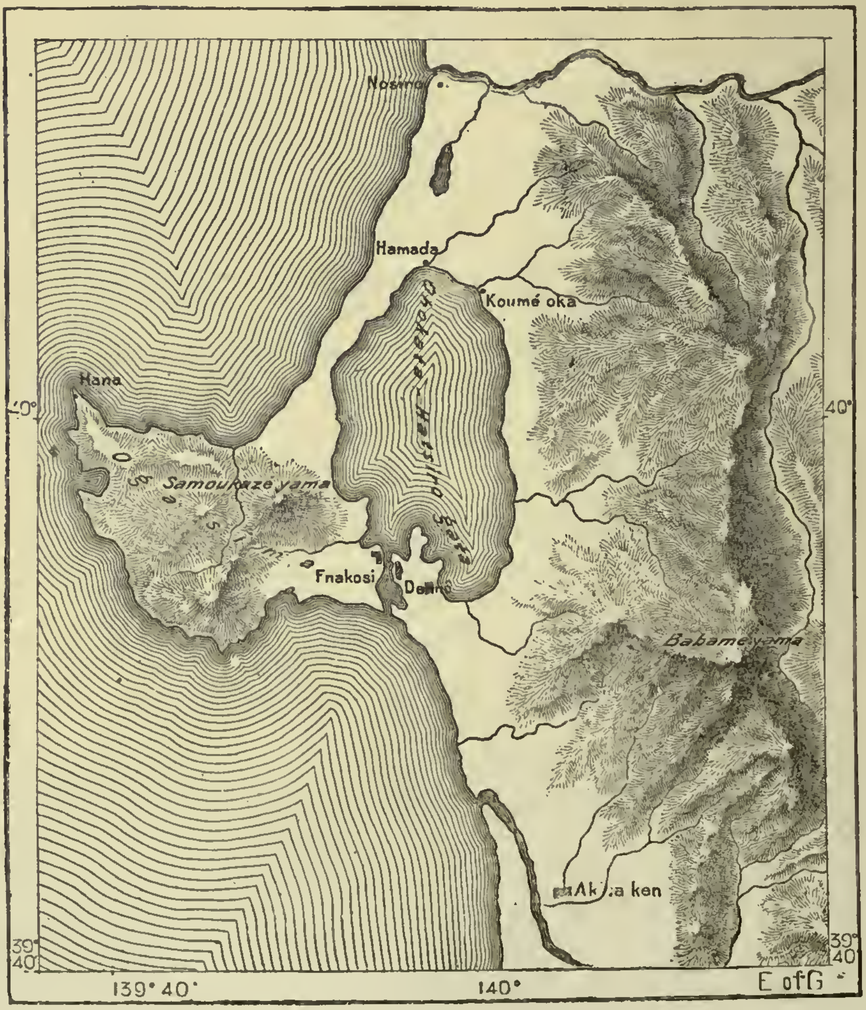
In the north-west a low schistose range, separated from the rest of Hondo by the deep valley of the Kitakami River, runs parallel with the main axis of the island. This outer chain, as it may be called, runs northwards to Sendai Bay, whose shallow waters are studded with the "eight hundred islands" of Matsusima, mostly covered with shrubs and cryptomeriæ, and forming an aquatic garden, which the Japanese regard as one of the "three wonders" of their country. The base of the islands has been worn by the water into natural caves and galleries, while grottoes have been artificially excavated on the steeper slopes. One of the peaks has also been carved into the form of a colossal Buddha.

South of the Sendai Plain the range resumes its former direction, but still remains completely isolated by broad valleys from the highlands of the interior. Formerly it terminated southwards, also in a gulf. But this inlet has been filled up by the alluvia of the Tone-gava, which, after watering the plain with its

innumerable channels, winds round the hilly district, stretching east of Yedo (Tokio) Bay. The sedimentary matter brought down by this river, encroaching simultaneously on both sides, has completely effaced the old marine inlet, so that the island is now connected with the mainland by marshy plains, which have become gradually solidified. But although thus now rooted in the mainland, the three

Fig. 171.—Oga-sima Island, and Ohokata-hatsiro Sea.

Scale 1 : 500,000.



12 Miles.

sections of the eastern coast range are distinguished from all the others by the total absence of volcanoes. Yet along the base of these schistose hills the most unequivocal evidences have been discovered of the upheaval of the land. The little port of Kisenuma, lying north of Sendai Bay, was still much frequented till the middle of the present century, but is now abandoned, in consequence of the

gradual shoaling of the channel. Yet here there is no river to wash down detritus, nor have the tides formed any bar across the harbour. During the present generation the coast near Kisenuma seems to have been upheaved altogether as much as 5 feet. The drying up of the Tokio plains and neighbouring inlet, now watered by the Tone-gava, would thus appear not to be due so much to the alluvia washed down as to the upheaval of the land.

On the west side another coast range runs parallel with the main axis of Hondo, but being mostly submerged, this chain can only be traced by isolated masses throughout the greater part of its course. The first of these forms a peninsula at the northern extremity of the island, beyond which follow the Ivaki-yama and the Oga-sima, or "Stag Island," connected with the mainland by a long strip of sand, and culminating with Samukaze-yama, 2,550 feet high. Thus is formed the landlocked inlet, or "great lake" of Ohokata Hatsiro-gata, which communicates with the sea through the Funa-gava channel, navigable by vessels drawing 16 feet. Further south follow the Tobi-sima, Avo-sima, Sado, and the peninsula of the Noto, by which Toyama Bay is enclosed on the west. To the same western coast range, perhaps, also belong the Oki Islands, lying 180 miles farther south, some of whose peaks are of igneous origin.

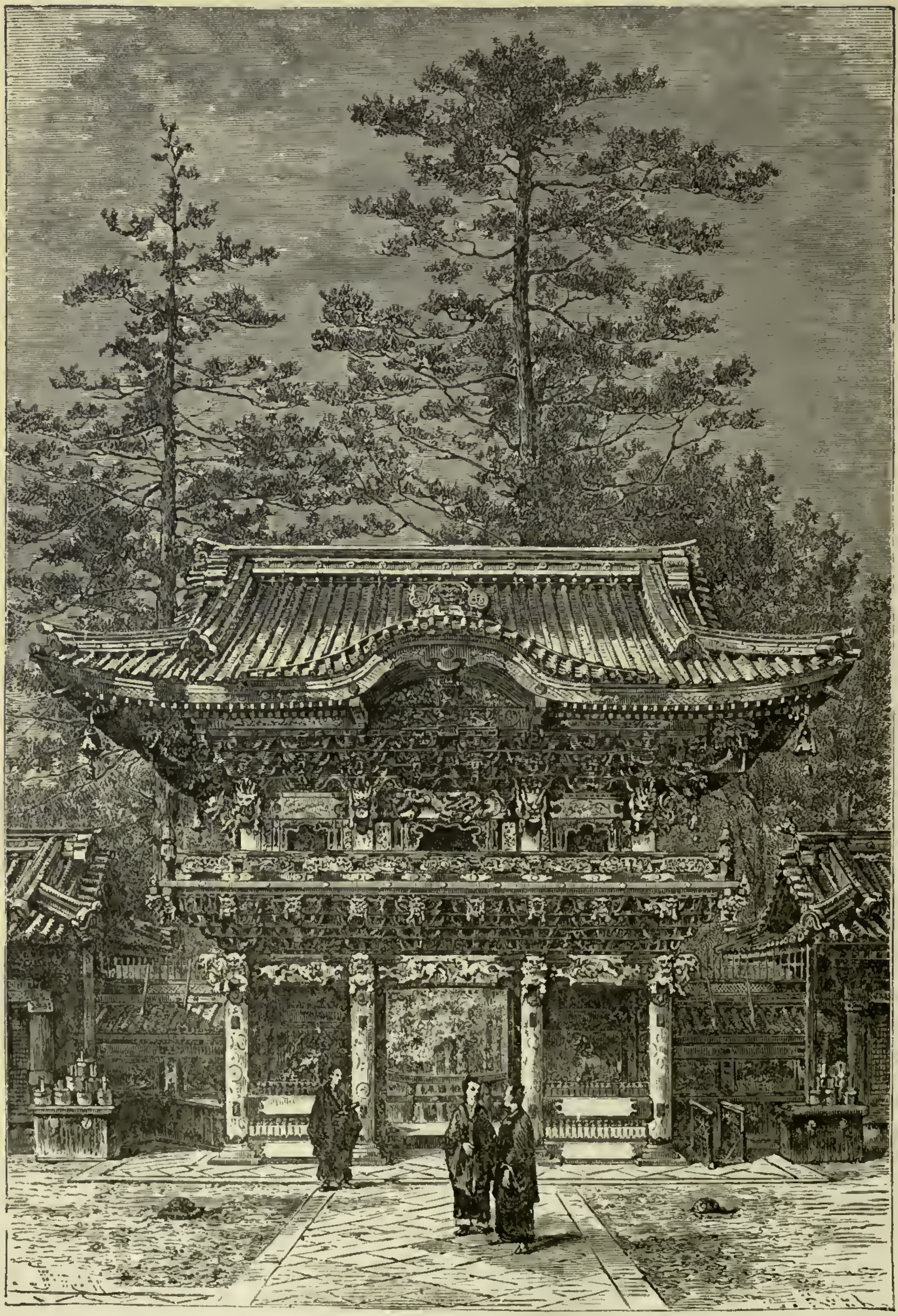
The main range itself begins with the magnificent Osore-san volcano, which rises to a height of 5,250 feet between Tsugar Strait and Avomori Bay, over against Yeso. Beyond the bay the chain is continued uninterruptedly to the centre of the island at a mean elevation of 2,000 to 3,000 feet, above which the summits, mostly extinct volcanoes, rise to an average height of 5,000 feet. But the central ridge is flanked right and left by still more imposing igneous cones, amongst which some of the most conspicuous are the Tiokai-san (8,000 feet), snow-clad for nine months in the year, and the Bantai-san (6,100 feet), which reflects its wooded slopes in the neighbouring lake, Inavasiro, and from the summit of which a superb view is afforded of the surrounding plains and highlands.

The Nikko Highlands—A Buddhist Legend.

In this section the central range is deflected westwards to another parallel ridge, which in its turn forms the water-parting between the Tone-gava and Tenriu on the east, and the Tzikuma, or Sinano-gava, on the west. Here is the magnificent group of the Nikko-san Highlands, renowned throughout the empire for their snowy peaks, wooded slopes, sparkling streams, and romantic beauties of every sort. The Nantai-san, towering to a height of 8,450 feet above the sea, close to the picturesque lake Tsiusenzi, is one of the sacred mountains of Japan, and the glorious avenues of this region are probably unrivalled in the whole world. "Speak not of beauty till you have seen Nikko," says the local proverb. Owing to its proximity to Tokio, this place is visited by multitudes of sightseers during the summer months.

At Nikko there is an ancient Buddhist temple said to have been erected by the famous saint Sho-do Sho-nin, concerning whom a curious legend has been preserved.

Fig. 172.—Nikko—Portico of the Temple of the Four Dragons.



From his earliest years this saint devoted himself to the worship of the gods, and passed his time in raising toy pagodas of earth and stone in their honour, thereby

earning from his playmates the title of "temple builder." When twenty years of age he secretly left his home, and retired to the cave of the Thousand-Handed Kwan-non at Idzaru. Here he had a dream in midwinter of a great mountain to the north, on the summit of which lay a sword over three feet in length. On awaking he set out for the indicated spot, and notwithstanding the deep snow, at last beheld the object of his vision. Ascending the mountain he continued to live an austere life for three years, during which he was fed on fruits brought to him by supernatural agency. He then returned to Idzaru and remained for five years as a novice in a temple administered by Chinese priests. Returning to the mountain now called Kobu-ga-hara, he beheld from its summit four miraculous clouds of different colours rising straight up into the sky, and he at once set off to reach them, carrying his prayer-books and images in a bundle on his back. But his advance being barred by a broad impetuous river, he fell upon his knees in prayer, when there appeared on the opposite bank a gigantic being with skulls strung round his neck, who promised to help him as he had once helped the pilgrim H'wen Tsang over the river of Golden Sand. Saying which he flung across a pair of green and blue snakes, whereupon the waters were spanned by a long bridge, like a rainbow, over which the saint crossed to the other side. Then he had a vision informing him that the hill to the north was the "Mount of the Four Gods," the abode of the Azure Dragon, the Vermilion Bird, the White Tiger, and the Gloomy Warrior. On reaching the summit he found that this was the goal of his journey, for there were the four clouds rising up before him. Here, therefore, he built a shrine for the image of the Thousand-Handed Kwan-non, and named it the "Monastery of the Four Dragons." Sho-do Sho-nin died in A.D. 817.

Asama-yama and Fuzi-san.

The water-parting skirting the east side of the Sinano Valley is also crowned by many volcanic peaks, conspicuous amongst which are Sirane-yama and Adzma-yama, the former of which was the scene of a violent eruption in 1871. In the neighbourhood are some petroleum wells, one of which has been sunk to a depth of 740 feet. Further south the main range is intersected by a chain of volcanoes running north-north-west and south-south-east, amongst which the most famous are the Asama-yama and Fuzi-san. The former, which attains an elevation of 8,400 feet, is one of the highest and most active in the archipelago. The memory still survives of the tremendous eruption of 1783, when the surrounding country was covered by lava streams and pumice, when forty-eight villages were destroyed, and many thousand lives lost.

A vast river of molten rock utterly ruined a famous primeval forest of considerable extent besides a large number of hamlets on the north side. Red hot masses of stone were hurled in this direction as well as towards the east and south-east, while a dense shower of ashes turned the day into night. The neighbourhood of the Nake-sen-do between Oiwake and the Usui-toge, which had formerly been highly cultivated, was suddenly converted into a wilderness, and a large number of

villages in this district and in the Agatsuma department of the province of Kodzuke were swept away with all their inhabitants. Monkeys, deer, dogs and other animals were buried under the showers of red hot stones and ashes, while those that had escaped immediate destruction perished of hunger. For the falling rock, lava and ashes had covered the ground to a depth of from two to five feet for many miles round about, and had completely destroyed the vegetation. Another eruption, but of a much less formidable character, took place, in the year 1870, when the ashes ejected from the crater formed a layer several inches in thickness on the roofs of the neighbouring houses

The crater of Asama-yama is circular, and nearly a mile in circumference, with vertical honeycombed and charred sides, usually full of sulphurous vapours welling from the bottom and from all the crevices in its rocky walls. On the south side of the volcano are two precipitous rocks, one outside the other, separated by a considerable intervening space. These rocks, one of which is nearly covered with vegetation, look like the remains of two successive concentric craters, the present cone being the third and most recent. Unfathomable crevasses extend the greater part of the way down to its base, and from the summit, which may be reached in less than six hours, an extensive view is obtained of the surrounding highlands.

But the typical volcano of the archipelago is the sacred (Fuzi-san Fusi-yama), guardian of the land, and the most hallowed object in the empire. Formerly worshipped by the Yama-büzi Buddhist sect, this mountain, which takes its name from the flowering Fuzi (*Wysteria Japonensis*) covering its slopes, is the everlasting theme of poetry and art, and is reproduced often in a somewhat conventional manner on lacquer-ware, porcelain, woven fabrics, earthenware, fans, books, furniture, and artistic articles of every kind. To give it a greater appearance of height, it is usually represented with steep sides and pointed peak, whereas in reality the slope is very gentle, yet still high enough to dominate all the surrounding lands, and display every transition of climate, from the rich semi-tropical plains at its base, to the snows of an almost Arctic region on its rounded crest. Covered with snow for ten months in the year, and glittering in the bright solar rays against the azure or hazy sky, it often merges imperceptibly in the circumambient aerial spaces. It exceeds by some 3,000 feet most of the other Japanese volcanoes, and completely dwarfs all eminences within the horizon. Almost round in form, its base has a circumference of no less than 90 miles, and according to the local legend its huge mass was upheaved in a single night during a terrific eruption in the year 285 of the old era, when lake Biva was also formed. At present eruptions take place only at long intervals, not more than six having been recorded since the year 799. The last, which occurred in 1707, continued for a space of two months, during which the secondary cone of Hoyei-san (9,500 feet) was formed above a crevasse on the south slope. The neighbouring plains were buried in ashes to a depth of 10 feet, whole villages disappeared, the sky was darkened above Yedo, 60 miles off, and black clouds of dust were borne seawards beyond the bay. Since then the towns and villages have reappeared, and the 15,000 or 20,000 yearly pilgrims have resumed their visits to the holy mount. Those who make the ascent are clothed

FUZI YAMA—VIEW TAKEN FROM THE SOUTH-WEST

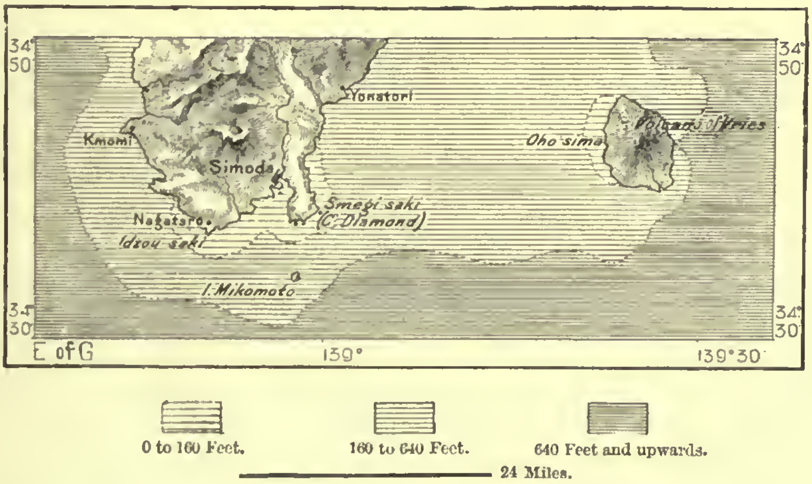
in white, and on reaching the crater drink first of the "golden spring" and then of the "silver spring," after which, at a given signal, they ring their bells and fall prostrate in honour of the sun. Returning to the base, they get their white robes stamped by the priest of a temple, bequeathing them as a precious heirloom from father to son. Sir Rutherford Alcock was the first European to ascend Fuzi in 1860, since when the not very difficult feat has been performed by hundreds of travellers. The crater, about 900 yards in diameter, contains two distinct funnels, which may be descended by means of projecting ledges.

The Highlands of South Hondo.

The system to which Fuzi belongs is continued southwards to form the long volcanic peninsula of Idzu, at the neck of which is the picturesque district

Fig. 173.—Gulf of Simoda and Oho-sima.

Scale 1 : 1,200,000.



of Sagami. Here several watering-places have sprung up near the hot springs, and the town of Hakone, on the charming lake Asino-umi, has become a favourite summer retreat. East of this place the route between Tokio and Kioto crosses the range by the Hakone pass (2,800 feet), which was formerly defended by a fortified *Kwan* or gate, forming the central barrier of Nip-pon, whence the terms Kwan-to and Kwan-sai ("East of the Gate," and "West of the Gate") applied to the two divisions of Hondo lying east and west of the meridian of Hakone. The Idzu peninsula terminates southwards with a lofty bluff overlooking the town and bay of Simoda, where the islet of Mikomoto (Rock Island), memorable for the shipwreck of the *Nile* in 1867, is now surmounted by a lighthouse. Simoda Bay was also the scene of a remarkable submarine earthquake in 1854, when all the shipping in the harbour was destroyed, and the Russian vessel the *Diana* rolled over and over forty-three times in thirty minutes.

East of Simoda lies the island of Oho-sima, called the Vries Volcano by

Europeans, which is the most active on this seaboard. It was in a state of eruption when visited by Broughton in 1757, and broke out again in 1870, when an islet was upheaved between 31° and 32° N. latitude.

South of the granitic chain running north-west of Fuzi-san, Hondo is crossed from sea to sea by a transverse depression, in which is situated the charming lake Suva. Immediately beyond this depression the land again rises to a high range, running north-east and south-west between the basins of the Tenriu and Kiso Rivers. Parallel to this is the Hida chain, which falls from the coast gradually down to the valley of the Kiso-gava, and which is the most rugged and wildest of all the Hondo mountains. Being snow-clad for a longer period than any other in the island, Rein gives it the name of the "Snowy Range," and it is crossed from east to west by the Harinoki and Hida passes, both 8,000 feet high. It is crowned by the Tate-yama, On-take, and Mi-take, attaining elevations of 9,500 and 10,000 feet, besides eight large craters, some now filled by highland lakelets. Thousands of pilgrims yearly visit this romantic region, to worship the idols of Isanagi and Isanami, divine ancestors of the Mikado's family. European explorers describe in enthusiastic language the glorious prospect commanded from these volcanic heights, whence the eye sweeps over all the land and surrounding seas. Although there has been no eruption during the historic period, sulphurous vapours are still emitted from the ground in many places, while another chain of igneous crests runs north of the Snowy Range parallel with the coast. Here the chief cone is the Yake-yama, which has been ascended by the geologist Von Drasche.

The remarkable solfataras of Tate-yama have recently been visited and described by Mr. W. G. Dixon. "Traversing through the mist one or two ridges, and passing between two little tarns—that on the left of an intensely green colour—we descended into a wide bleak hollow with jagged sides, from which a thunderous noise was arising. The air cleared of its vapours revealed a most striking scene with extraordinary contrasts of colour: mounds of volcanic matter, white, yellow, blue, purple, pink, crimson, black, as many shades as in a rainbow. Overhanging these was the brilliant green of one of the spurs of Tate-yama, and above all a rich cobalt sky.

"We descended into the hell-like valley with due caution, for great or small springs were bubbling on all sides. The loudest noise—a noise as of a dozen boilers letting off steam—came from a bright yellow hole a few feet in circumference, whence a thick cloud of steam mixed with sulphuretted hydrogen was issuing with terrific force, ejecting lumps of the deposited sulphur to a distance of 10 or 15 feet. A few yards off a similar but smaller jet was vehemently hissing. Across a sulphurous mound, about 50 yards distant, was a pool of some 6 feet in diameter, consisting of green sulphur mud in a state of violent ebullition, the green liquid in the centre at times leaping 8 or 10 feet into the air. Then about equally distant from this and the roaring funnels another large pool was boiling, but with less sulphur in its water, which was of an ordinary brown muddy colour. Other geysers were scattered around, most of them of pure hot water, and smaller

LAKE HAKONE.

bubblings everywhere. On the slopes of the hollow stood a few stone idols. A couple of men were gathering sulphur." *

West of the Hida range the horizon is broken by the Siro-yama, or Haku-san, that is, "White Mountain," which is so called from its abundant snows, and which was the scene of eruptions in 1239 and again in 1554. Owing to the generally colder climate of the west side of Hondo, the Haku-san, while 3,000 feet lower than Fuzi, receives a far greater quantity of snow, and its upper crevasses remain streaked with white throughout the summer months. According to a local tradition, it has never been entirely free from snow for the last two hundred years and even at its base, near the Itsinose hot springs, the ground is occasionally covered with frozen masses over 20 feet deep. Botanists have discovered a greater variety of vegetable species on Siro-yama than on any other mountain in Japan, a circumstance attributed by them to the peculiar climatic conditions of these uplands.

Lake Biva.

A low ridge running south and south-west from the Siro-yama bifurcates round a vast and profound cavity filled by the waters of lake Biva (the "Guitar"), which, according to the legend, was formed at the time when Fuzi-san rose above the surface. But long before this period there existed an inland freshwater basin, the Avo-umi, which word, contracted to Aomi, Omi, has become the name of the province encircling the lake. This basin has certainly been the scene of igneous eruptions. The island of Tsikubu-sima, containing one of the most venerated Sinto shrines in the Empire, was upheaved in the northern part of the lake in the year 82 of the new era, and other islets seem to be also of igneous origin. The surface stands some 330 feet above sea level, and in the profounder cavities the sounding line has recorded depths of 280 feet. The volume of water is thus far inferior to that of Geneva, with which Biva is often compared, and which it about equals in extent. Like Geneva, it is enclosed by mountains, some cultivated, some wooded, but all presenting bold or graceful outlines. In autumn, when the heavy clouds of the monsoon have been dispersed by the winds, the varied contours of the surrounding highlands, with their green, violet, bluish, or rosy tints, blend harmoniously in a marvellous landscape, changing incessantly with the shifting play of light and shade. Eastwards rises the Ibuki-yama, the loftiest crest in this vast amphitheatre, in the popular fancy formerly peopled with maleficent spirits. South-westwards stands the famous Hiyei-san, whose Buddhist monasteries were inhabited by 3,000 monks down to the middle of the sixteenth century. These real masters of the land, assembling in the Temple of Kimon ("The Devil's Gate"), were bound to pray night and day, beating drums and ringing bells, in order to dissipate the evil influences proceeding from Ibuki-yama, and thus protect the sacred city of Kioto, situated at the southern foot of the mountain. The romantic region encircling Biva and its emissary, the Yodo-gava, is the true cradle of Japanese nationality, to which the grand historic memories thus lend an additional charm in

* "The Land of the Morning," 1882. p. 652.

the eye of the intelligent traveller. In the russet clouds of the west, says the legend, is reflected the blood, still boiling in the surrounding craters, which has been shed by all those who have ever fallen on the battle-fields of their native land.

"Near Seta, at the southern extremity of the lake, there is a shrine dedicated to the memory of Tawara Toda Hidesato, a famous hero who flourished in the tenth century of the Christian era. At that time the lake was haunted by a dragon, who was continually harassed by a huge centipede, living on Mikami-yama, which overlooks the south-east end of the lake. One day, when about to cross the bridge at Seta, Hidesato found it occupied by the dragon, who glared at him with eyes as large and bright as a pair of suns, and ejected flames from his gaping jaws. Nevertheless, the hero, nothing daunted, boldly stepped over the monster's back without deigning to cast a glance behind him. He had not gone far when a dwarf appeared in front of him, and after praising the courage of which he had just been witness, asked him to slay the oppressor. The warrior accepted the task, and returned with the dwarf to the lake, where they plunged in, and after walking a few miles along the bottom, came to a magnificent palace, adorned with purple and gold, which stood in a court strewn with lapis lazuli and paved with jade. The dwarf went in first, and reappearing shortly in robes of state, invited Hidesato to enter and take his seat at a banquet. Towards midnight the approach of the enemy was announced, and Hidesato, armed with his mighty bow, which required the united efforts of five ordinary men to pull, and three arrows each fifteen hand-breadths long, stood ready to receive him. On came the centipede, his huge dark mass illuminated by a few thousand torches borne in his claws. Hidesato discharged his first arrow at the monster's iron forehead, but it bounded off without so much as leaving a dent behind. A second bolt also failed to take effect, and there was but one left. Suddenly bethinking himself of an expedient, he moistened the point with spittle, and shot it with unerring aim into the same spot as before. This time, instead of glancing off the polished surface, the shaft buried itself up to its feathers in the body. The lights instantly disappeared and the enormous carcass fell to the earth with a noise like thunder. As a reward for his prowess, the dragon presented Hidesato with an inexhaustible roll of silk, which grew again when part was cut off, and the famous bronze bell which he gave to the temple of Miidera" (*Satow*).

The peninsula projecting southwards from lake Biva, as well as the western extremity of Hondo, are almost distinct regions, which are attached to the great island only by narrow strips of land. Nevertheless they resemble the rest of the country in their highland character. Southwards rises the Oho-mine, one of the few groups where no volcanic formations have been discovered, and at the same time one of the wildest and best wooded regions in the archipelago. Towards the west the Daïzen, an old igneous cone, commands a low range crossed by several passes scarcely 1,000 feet high.

THE INLAND SEA.

The winding marine inlet which separates Hondo from the southern islands is in reality a mere succession of fiords and *nada,* or independent basins, which have been united in a common "Mediterranean" sea stretching for about 240 miles east and west, and everywhere studded with innumerable wooded islands and islets. Sailing through these placid waters, the traveller is surprised at every turn of the

Fig. 174.—LAKE BIVA.
Scale 1 : 750,000.

18 Miles.

channel by a fresh vista, a continuous panorama of enchanting scenery thus unfolding itself in endless variety. In the Seto-utsi, or "Inland Sea," as it has been appropriately named, the coastline resembles that of Norway, but under an Italian sky, and clothed with the vegetation of the Eastern Archipelago. At the dawn of time, sing the national poets, here the divine pair, Isanagi and Isanami, were seated on the heavenly bridge upheld by pillars of clouds, whence they delighted to contemplate the white-crested sea-horses chasing each other beneath them. Listlessly reposing on the clouds, the immortal dipped his bright red spear-head in the deep,

and for every drop that fell there arose one of those verdant isles which are now dotted over these waters, and one of the first to appear was the fair Avadzi, which still stands sentinel at the eastern entrance of the fairy scene.

Geographically the Japanese Mediterranean must be regarded as little more than a simple depression produced by erosion. Even in the deeper cavities there are scarcely more than 150 feet of water, while the mean depth is less than 80 feet. The Simono-seki Strait, as the western entrance is called, has hardly 30 feet, so that large vessels unaided by steam cannot safely enter into this narrow marine channel, obstructed as it is by numerous reefs and dangerous currents. Of the other straits by which it is approached, the Tomoga-sima, being freer from strong currents, is generally chosen by shipping, while the Naruto Channel between Avadzi and Sikok is more dreaded than any other in the Japanese waters.

At the western entrance stands a picturesque island, with a lighthouse built by foreign engineers and supplied with dioptric lights, with the lantern poised so as to resist the effects of earthquakes everywhere so frequent in Japan. Through the strait the course is tortuous, running first north then eastwards, when vessels passing to or fro seem completely landlocked. "As the boat progresses a distance of some ten or twelve miles, a varying panorama of great beauty discloses itself at every mile. On either hand rise high lands, sometimes wooded from base to summit, sometimes diversified by hills clear of timber, but 'with verdure clad,' sometimes crested with trees, sometimes fringed at the foot with forests, or with strips of bright green turf or yellow sands. Rocky heights rise behind, with sparse tufts of vegetation, or stunted shrubs on their sides, showing the effects of severe weather, or riven clefts into which bountiful nature has crowded trees, lending majesty to the smiling foreground.

"Bays and inlets of enticing picturesqueness appear, where trim native craft of various dimensions are seen at anchor, while clear-looking villages lying low near the beach, or built up the hills in terraces, give life to the scenery. Rounding the last point, which, like several others, seems to bar all further advance, the spectator is induced to fancy, perhaps not regretfully, that the huge steamer must remain landlocked within this terraqueous Paradise. The fortified city of Simono-seki then looms in the distance on the northern side of the waters, the strait widening at every mile. Slowly the picture unfolds its details and discovers to the view a walled town with many large buildings stretching along the shore for several miles, and for some distance inland. But this port is not open to foreign traffic, so the steamer pursues its course to the eastward, passing several islets and another strait, until it emerges in a wide expanse of waters." *

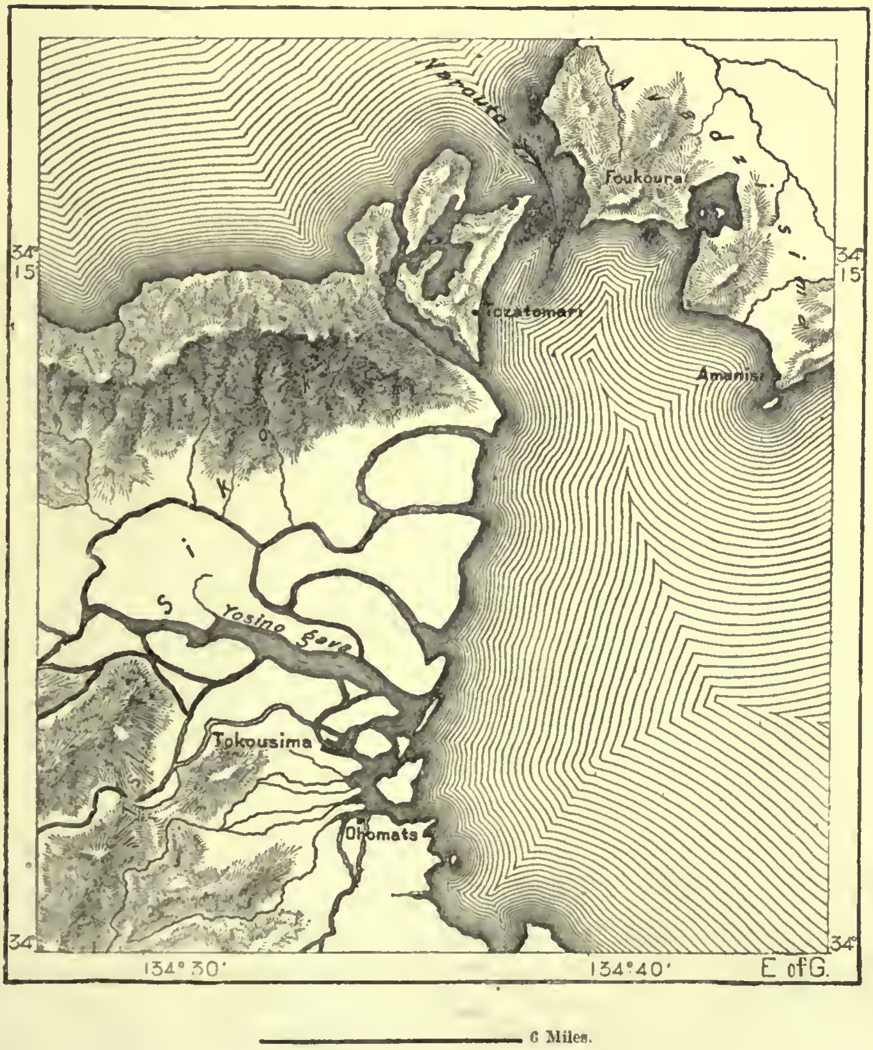
The Island of Sikok.

The island of Sikok, which skirts the south side of the Inland Sea for about half of its entire length, consists of an irregular mass of schistose hills running mainly east and west. The Sikokno Saburo, which is the chief stream, runs

* S. Mossman, "Japan," 1880, p. 13, 15.

parallel with the axis of these old schistose rocks, and the same direction is followed by the narrow western headland, which projects towards a corresponding promontory in the island of Kiu-siu, thus leaving only a very narrow passage for the waters of the Inland Sea. Although of comparatively moderate elevation, rising nowhere above 4,620 feet, the main ridge presents none the less a serious

Fig. 175.—Naruto Strait.
Scale 1 : 300,000.



obstacle to the communication between the two slopes of the island. Some of the passes are considerably over 3,000 feet high, and above the main ridge rise some peaks of volcanic origin. The hill sides are clothed with a rich and varied vegetation, which, in the neighbourhood of the streams, often assumes an almost tropical aspect.

The Island of Kiu-siu.

Like those of Sikok, the Kiu-siu rocks, running north and south, consist mainly of crystalline schists, overlaid with trachytes, which are interspersed with tufa and lignite. But here also occur some volcanic cones, a few of which are either constantly or intermittently active. Such is the Aso-yama in the centre of the island, on whose slopes are some sulphur and alum beds, besides ochrous formations containing a white fatty substance, which has not yet been analyzed, and which is eaten by the inhabitants of the district. The eruption of 1874 changed the surrounding streams into torrents of a milky colour, a phenomenon apparently of frequent occurrence, to judge, at least, from the name of the chief stream—the Sira-kava, or "White River." Although of moderate elevation, the crater of

Fig. 176.—Yama-gava and Mount Kaimon.
Scale 1 : 220,000.

5 Miles.

Aso-yama resembles those of the moon in its vast proportions, being no less than 14 miles long by 10 miles broad between its vertical walls, which are from 700 to 1,000 feet high. Within this extensive area dwell over 10,000 people, who seem scarcely conscious that their villages stand on the very mouth of a volcano.

The peninsula of Simabara, stretching east of Nagasaki, consists of a single mass sloping regularly down to the sea. This is the famous Unzen-ga-take (Unzen-san), or "Mountain of the Hot Springs," whose vast crater swallowed up thousands of Christians in 1638, during the revolt of the recently converted Catholics, at that time very numerous in this part of the empire. Although quiescent for the last one hundred years, the cone still emits sulphurous vapours, which in the time of Kämpfer were so dense that birds on the wing kept many

miles from the mountain. Mud and gases escaped from innumerable fissures, and during the rains the whole ground bubbled up like a liquid mass. A former eruption of the neighbouring Miyi-yama, attended by tremendous floodings, cost the lives of 50,000 persons.

South of Kiu-siu a group of volcanoes has received the name of Kiri-sima, or "Fog Island," on account of the sulphurous vapours constantly emitted by them. Here all the rocks consist of tufas, trachytes, pumice, and other igneous matter, and the plateau supporting the twin peaks of Kiri-sima is an arid region, strewn

Fig. 177.—Kago-sima and Mi-take Volcano.

Scale 1 : 300,000.

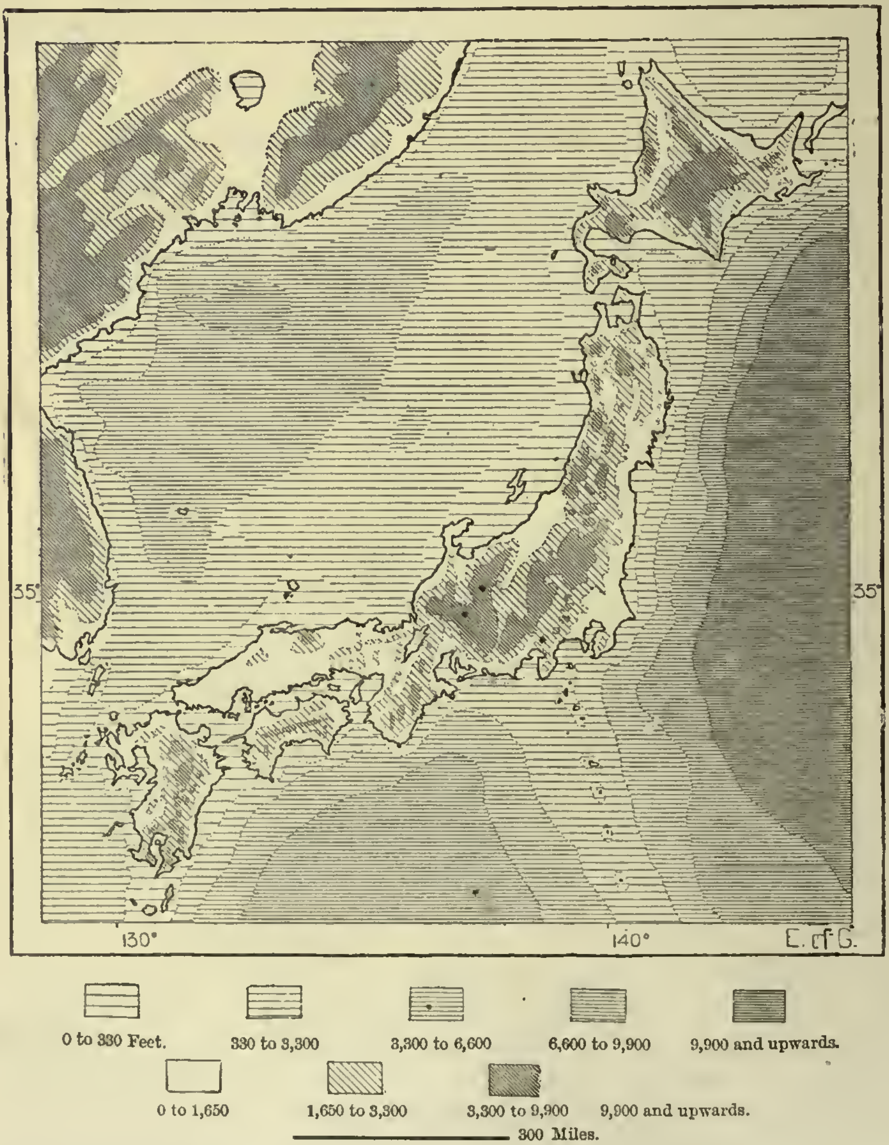
with ashes and reddish scoriæ, relieved only by a few dwarf pines and other shrubs. These appear to be the culminating points of Kiu-siu, and they are certainly more elevated than Aso-yama and Komats-yama in the south-east.

The peninsula enclosing the picturesque bay of Kago-sima on the west is one of the most remarkable regions in Japan. The long tongue of land bending round the bay is dominated by the superb Mount Kaimon, the Cape Horner of European maps, which is almost unrivalled for its beautiful form and symmetrical contour. North of it formerly stood a still more elevated volcano, the pyramidal crest of which was destroyed during an eruption, all memory of which has

perished. The circular basin thus formed is now filled by the waters of lake Mi-ike, while a similar lacustrine formation overlooks the town and roadstead of Yama-gava.

Kago-sima Bay also contains the remarkable Mi-take volcano, whose ruptured cone fills the whole islet of Sakura-sima. Above the cultivated and wooded zones

Fig. 178.—Relief of Japan and Depths of the surrounding Waters.
Scale 1 : 15,000,000.



rise greyish crags and crevasses, which a hundred years ago still discharged dense volumes of vapour.

The group of islands forming a south-western continuation of Japan also consists of schistose rocks covered here and there with matter thrown up from the surrounding waters. Amongst the cones conspicuous is Ivoga-sima, the Stromboli

CAPE HORNER—VIEW TAKEN FROM THE ENTRANCE OF KAGOSIMA BAY.

of Japan, which is nearly as high (2,400 feet) as its Sicilian rivals, and which from its crater and side fissures, incessantly emits vapours, white by day and red by night. Its rich sulphur beds are one of the Prince of Satsma's chief sources of income. Tanega-sima and Yakuno-sima, the largest islands of the group, are now quiescent; but Naka-sima, Suva-sima, Yoko-sima, Ivo-sima, and the other islets stretching south-west parallel with the chief axis of Riu-kiu are all still active volcanoes. The chain of igneous rocks is continued towards the northern extremity of Formosa by a line of reefs also probably of igneous origin.

The Riu-kiu (Lu-chu) and Goto Archipelagos.

Siunanguto and the small Linshoten group adjacent to Kiu-siu, belong geographically to the Riu-kiu Archipelago, which is better known by its Fokien name of Lu-chu, and which the natives themselves call Du-kiu,* that is, "Land of the Precious Stone," or of the "Transparent Coral," as the term may be variously interpreted. The geometrical curve described by all these islands between Kiu-siu and Formosa, the radius of which corresponds to that of Nip-pon itself, probably represents the remains of a highland region by which Japan was formerly connected with the mainland. Lu-chu comprises a number of secondary groups, the two most important of which stretch about half-way from Kiu-siu to Formosa, and form the so-called "Kingdom" of Lu-chu. Politically, this "kingdom" is at present a simple Japanese department, while the southern group of the "Three San" (Nan-san or Sak-sima) is still a subject of dispute betwen China and Japan. The Mikado's government, however, seems now disposed to surrender these islands to its powerful neighbour.

Like Korea, Lu-chu was long a vassal state of the neighbouring Empires of China and Japan. Towards the end of the fourteenth century, the Chinese, after various incursions into the archipelago, compelled the King to declare himself tributary of the "Son of Heaven," and accept the investiture from him. Within fifty years of that event the Japanese presented themselves in their turn, and enforced "presents," which were gradually changed to a regular tribute. In 1609 an expedition, undertaken by the Prince of Satsma, ended with the formal recognition of the suzerainty of Japan over the archipelago. Akin in race and speech to the Japanese, the islanders nevertheless preferred the Chinese, and even boasted of their vassalage to Peking. The distant master, of whom they knew little except through his presents, seemed a more agreeable potentate to serve than the Emperor of Japan, represented on the spot by their troublesome neighbour the Prince of Satsma. But after the revolution of 1868, which restored the Mikado to power, some Japanese officials were sent as direct administrators of the islands, and the King was called upon to break all his relations with Peking. In vain the unhappy monarch pleaded: "For five hundred years we have enjoyed the protection of the Emperor of China; him we regard as our

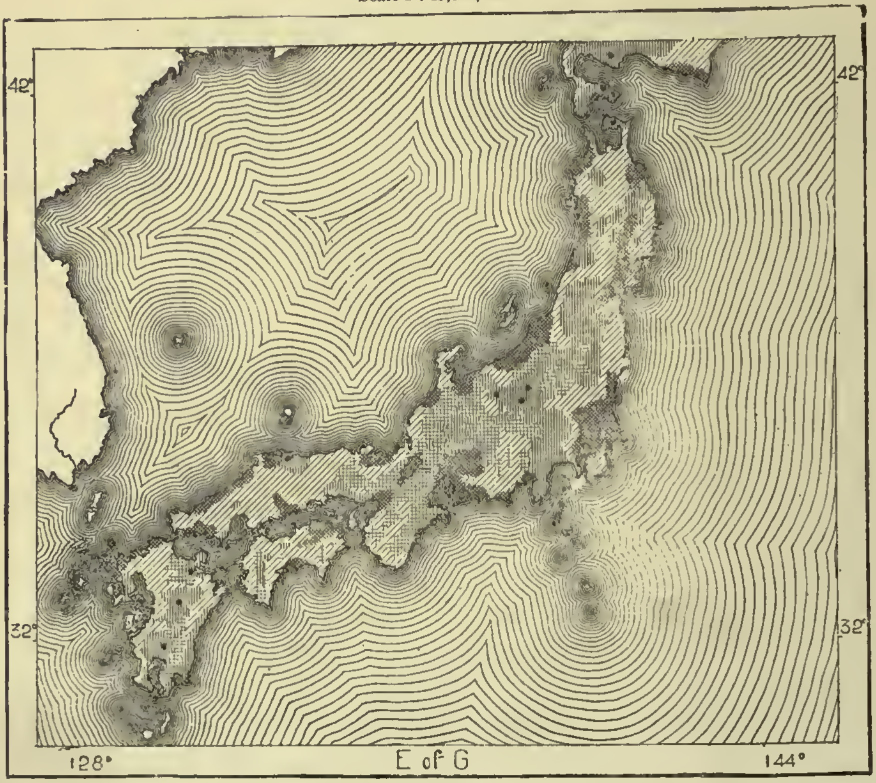
* All these forms are merely phonetic varieties of the same word, the Japanese *r* changing to *l* in Chinese, and to *d* in the local Lu-chu dialect. Compare the Latin and French *ulmus* and *orme*, and the Greek and Latin *δάκρυ* and *lacryma*.—Editor.

father, and to Japan we turn as to a mother. . . . Has not Confucius said that fealty is better than life? Ask us not to be disloyal, and forfeit our honour." He was fain to yield, and in 1874, after the victorious expedition of the Japanese to Formosa, the kingling was dethroned and Lu-chu definitely proclaimed a simple *ken,* or integral part of Nip-pon.

The reports of the learned Chinese Supao-kwang, sent by the Emperor Kang-hi to the archipelago in 1719, were the only important documents we possessed

Fig. 179.—Geology of Japan.

Scale 1 : 15,000,000.



Active Volcanoes (from Japanese sources).

Sedimentary rocks. Crystalline rocks. Alluvium. Igneous.

300 Miles.

regarding these islands down to the beginning of this century. But since the expeditions of Broughton in 1797, and of Maxwell and Basil Hall in 1816, numerous navigators of all nations, such as Jurien de la Gravière, Beechey, Belcher, and Perry, have visited the port of Nafa, in the main island, and published the accounts of their voyages. Both Catholic and Protestant missionaries have also resided in Lu-chu, while the Japanese and Europeans of Yokohama have even passed the winter season in the "Three San," in order to enjoy a milder climate than that of Central Nip-pon. But the result of these visits has so far been to render the local nomenclature more perplexing than it was in the time of

Kang-hi. To the Chinese, Japanese, and native names of places have been added those of the various Western nations, so that some of the islands have now no less than five distinct appellations. Amid all this confusion, the smaller islets and reefs have in vain been sought for by skippers navigating these waters, and a thorough survey of the archipelago by the Japanese navy is now urgently needed.

Fig. 180.—Tsu-sima.
Scale 1 : 240,000.

320 Feet. 320 and upwards.
3 Miles.

The two chief groups run north-east and south-west, that is to say, parallel with the other mountain systems in China and Japan. The various islands of these groups consist themselves of little granite, schist, sandstone, or limestone ridges, scarcely exceeding 1,600 feet in height, and sending down sparkling torrents, which are used up to the last drop in the rice grounds of the lowlands. The chief member of the northern group bears the name of Oho-sima, or "Great Island," although smaller in extent than Okinava, which takes the title of "Great Lu-chu," in which are concentrated nearly two-thirds of the population of the whole *ken*. It seems to have no igneous rocks, but the limestone crests of several hills have frequently been taken for lavas, owing to their peculiar vesicular structure.

Thanks to the high temperature of the surrounding waters, all the islands are encircled by coral reefs resembling those of the South Sea Islands, and like them with openings opposite the river mouths, the polypes being unable to live in fresh water. Thus have been formed on the Okinava coast the ports of Nafa and Melville, the Unting of the natives, discovered by Basil Hall. In several places the reefs rise considerably above sea-level, a circumstance doubtless due to upheaval, and off Nafa the water is so deep that the sounding-line gives no warning to shipping of the dangerous proximity of these rocks.

Buddhism was introduced into Lu-chu about 1,000 years ago; but the natives seem to trouble themselves very little with religious matters. The priests (bodzes) are not respected or esteemed in society; they are not allowed to marry or to eat meat; few people associate with them, and even the children turn from them in ridicule. Captain Basil Hall remarks on the total absence of anything in the least degree resembling a religious ceremony:—"The bodzes kept the temple clean swept and took care of the walks and hedges, and this appeared to be their only employment.

"Polygamy is not allowed in Lu-chu, and the King is the only person permitted by law to have concubines. They invariably spoke with horror of the Chinese practice, and were much gratified on learning that the English customs in this respect were similar to those of Lu-chu. The women are not treated so well as we were led to expect from the mildness of character in the men. The upper classes of women are confined a good deal to their houses, and the lower orders perform much of the hard work of husbandry. When they are met out of doors by the men they take no notice of one another, whatever may be the degree of relationship subsisting between them.

"They appear to have no money, and from all we could see or hear, they are even ignorant of its use. Though we were incessantly trying to make out what their medium of exchange was, we could never learn anything distinct upon the subject, nor could they be made to comprehend our questions about money. We saw no arms of any kind, and the natives always declared they had none. Their behaviour on seeing a musket fired certainly implied an ignorance of fire-arms. In one place we saw a spear which looked like a warlike weapon; but we had every reason to believe that it was used for the sole purpose of catching fish. They looked at our swords and cutlasses and at the Malay creeses and spears with great surprise. But the chiefs carried little case-knives in the folds of their robes, and the lower orders had a larger knife, but these were always of some immediate practical utility, and were not worn for defence nor as ornaments. They denied having any knowledge of war either by experience or by tradition.

"We never saw any punishment inflicted at Lu-chu. A tap with a fan or an angry look was the severest chastisement ever resorted to, as far as we could discover. In giving orders the chiefs were mild though firm, and the people always obeyed with cheerfulness. There seemed to be great respect and confidence on the one hand, and much consideration and kind feeling on the other. During our intercourse with these people there did not occur one instance of theft. They were all permitted to come on board indiscriminately; to go into the cabins, store-rooms, and wherever they liked, unattended. Yet there was not a single article taken away, though many hundreds of people were daily admitted, and allowed to examine whatever they pleased.

"The loose native robe was generally made of cotton in a great variety of colours. It opened in front, but the edges overlapped and were concealed by the folds so as to make it difficult to say whether or not the robe was continued all round. The sleeves were about three feet wide, and round the middle was a belt about four or

five inches wide, always of a different colour from the dress, and in general richly ornamented with wrought silk and gold flowers. The whole of the dress folds easily, and has a graceful and picturesque appearance.

"Their hair is of jet black, and is kept glossy by juice expressed from a leaf. It is pulled tight up all round and formed at the top into a compact knot, so as to conceal the crown of the head, which is shaved. Through the knot are thrust two metal pins, from four to six inches in length. The higher orders wear on state occasions what they called a 'hatchee-matchee', a kind of turban made by winding a broad band round a cylinder in such a way that a small segment of each fold is shown at every turn, in front above, and behind below.

"The cattle, which are of a small black breed, are used exclusively for agricultural purposes. Hogs, goats, and poultry, with rice and a great variety of vegetables, form the food of the inhabitants. Milk is never used. There are no sheep nor asses, and the horses are of a small slight make, and the natives are very fond of riding. The mode of dressing the ground is neat, and resembles the Chinese, particularly in manuring and irrigating it. Besides the sugar-cane, they grow tobacco, wheat, rice, Indian corn, millet, sweet potatoes and many other vegetables.

"The bamboo and rattan grow to a considerable size, but the pine is the most conspicuous tree on the island, growing to a great height and size. The banian-tree of India was seen at several places, the finest one overhanging the small temple at Napa-kiang." *

The Goto Islands, chosen by the Japanese Government as a place of banishment, are barely separated from Kiu-siu by a narrow channel studded with rocks and reefs. They form, with Hirado, a section of the orographic system, of which Pumpelly regards Chusan and the Ningpo Highlands as a continuation. Iki, lying to the north-west of Kiu-siu, is also a geographical dependence of this island. But Tsu-sima, standing in the very centre of Korea Strait, between the Broughton and Krusenstern Channels, seems to belong rather to the mainland than to Nip-pon. Some of its animal and vegetable species show an affinity to those of Manchuria. It long served as the commercial *entrepôt* between Korea and Japan, and the almost independent Prince of Tsu-sima enjoyed a monopoly of the exchanges through Fusan, before that port was thrown open to Japanese shipping. In 1861 some Russian officers made a settlement in the island, with the ostensible purpose of building dockyards for the repair of their vessels, but in consequence of a diplomatic conflict with England, they abandoned the station. It was situated near Fachu, the capital, on a broad inlet, which at high water divides Tsu-sima into two parts.

Japan and its dependent islands, occupying an essentially volcanic area, are subject to frequent earthquakes, due probably to the pressure of the vapours pent up near the surface of the ground. During the historic period the most violent shocks have occurred in the neighbourhood of the large volcanoes, and more especially in the plains of Tokio, which lie near Fusi-san, and which are watered by streams descending from Asama-yama. As many as 100,000 souls are said to have perished in 1854, when the greater part of Yedo was destroyed.

* "Voyage to Korea and Lu-chu," p. 203, *et seq.*

Hydrographic System—Chief Rivers.

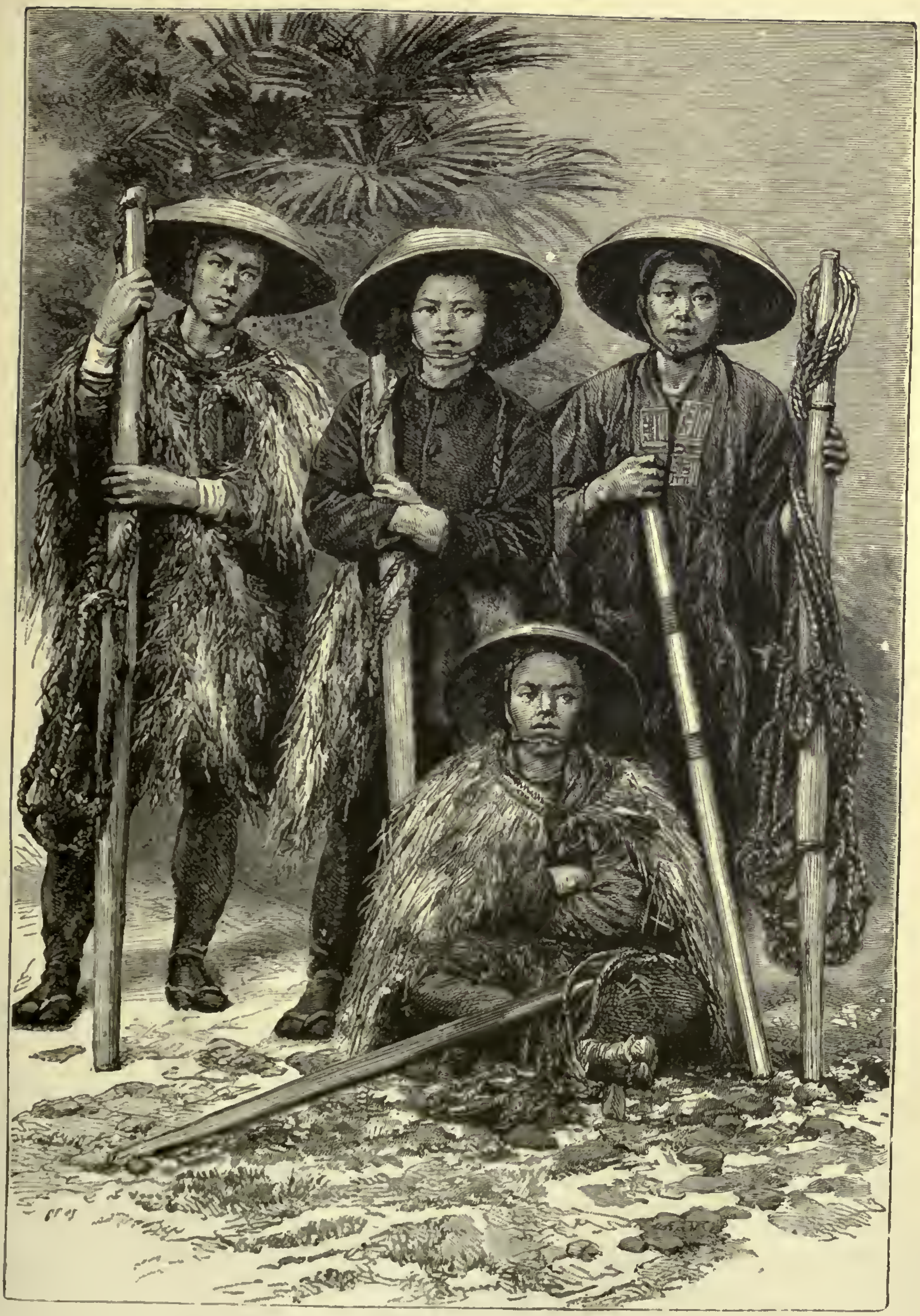
Owing to the narrowness of the land, which is nowhere 200 miles wide, and to the extremely mountainous character of its surface, no room is left for the development of large streams. The rivers, which are numerous enough, especially in Yeso and Hondo, in fact, resemble mountain torrents, with short and rapid courses, and, in their lower reaches, subject to sudden and disastrous inundations. They are consequently more damaging than beneficial even for irrigation purposes. To navigation they are not merely useless, but a positive hindrance, in consequence of the large quantities of sedimentary matter which they wash down, and by which several of the best harbours in the archipelago have already been choked up. Such has especially been the fate of Osaka and Nihi-gata harbours on the east and west sides of Nip-pon, which were formerly accessible to the largest vessels, but which can now be approached only by small craft. In Japan "a river-bed is a waste of sand, boulders and shingle, through the middle of which, among sandbanks and shallows, the river proper takes its devious course. In the freshets which occur to a greater or less extent every year, enormous volumes of water pour over these wastes, carrying sand and detritus down to the mouths, which are all obstructed by bars. Of these rivers the Shinano, being the biggest, is the most refractory, and has piled up a bar at its entrance through which there is only a passage 7 feet deep, which is perpetually shallowing." *

Subjoined is a table † of all the Japanese rivers, which have a total course of more than 50 miles :—

Name.	Source.	Outlet.	Length in miles.
Shinano	E. Shinano	Nihi-gata	180
Tone	N. Kodsuke	Gulf of Tokio and Pacific	170
Kitakame	N. of Rikuchiu	Ishinomaki and Murohama, E. coast of Rikuzen	140
Ishikari	N. of prov. Ishikari, Yesso	W. coast of Ishikari	130
Tenriu	Lake Sua	Pacific	120
Kiso	S.W. Shinano	Pacific	115
Sakata	S. of Usen	W. coast of Usen	110
Okuma	S.W. of prov. Iwaka	Watari, E. coast of Iwaki	110
Noshiro	W. of prov. Rikuchiu	Noshiro, W. coast of Rikuchiu	100
Akano	Lake Inawashiro	Near Nihi-gata, W. coast of Echigo	90
Sumida	E. Musashi	Gulf of Tokio	90
Toshima	S.E. of prov. Ugo	Kubota, W. coast of Ugo	70
Fujii	Koshiu	Pacific	70
Yodo	E. Iga	Osaka Bay	70
Baniu	Yamanaka (Koshiu)	Pacific	60
Oi	N. Koshiu	Pacific	55

Climate of Japan.

Being washed by marine waters, and enveloped in an atmosphere charged with oceanic vapours, Japan enjoys a much more equable climate than the continental regions, from which it is separated by the Sea of Korea. While Peking has the winters of Upsala and the summers of Cairo, Tokio suffers far less from such extremes of heat and cold. The oceanic current, to which the Japanese have given



JAPANESE PEASANTRY.

the name of Kuro-sivo, or "Black Stream," corresponds in its course and climatic influences with the Gulf Stream of the North Atlantic. It flows close by the east side of the large islands, and its tepid waters, coming from the Straits of Malaysia and the Philippines, bring with them an atmospheric current far milder than that of the neighbouring mainland. Its mean temperature, some four or five degrees lower than that of the Gulf Stream, varies from 74° to 81° Fahr., and thus exceeds by about nine degrees the normal temperaturo of the marine waters under the same latitudes. During the south-west summer monsoons, the stream flows directly to the coasts of Kiu-siu and Sikok, and the south side of Hondo; while in winter it is diverted by the polar winds towards the north-east. Its velocity varies from about 30 to 45 miles a day, and the plummet has recorded depths of 3,000 feet and upwards.

In the north the Oya-sivo polar current, emerging from the Sea of Okhotsk, meets the Kuro-sivo, one branch of which penetrates through Tsugar Strait. As in the Atlantic, the two streams move side by side in parallel lines, but in opposite directions, under a sky frequently charged with dense vapours. The Oya-sivo, which in winter fringes the east coast of Yeso with drift ice, also brings large quantities of marine animals from the northern latitudes, thus contributing abundant supplies of food to the inhabitants of Nip-pon. The coasts of Yeso, which are exposed to the two streams of the North Pacific, correspond in this respect to the banks of Newfoundland.

West of the Japanese Archipelago, a branch of the Kuro-sivo flowing round the island of Tsu-sima also contributes to raise the normal temperature in these latitudes. Its influence is chiefly felt on the north side of Hondo, where its waters have an average temperature of about 69° Fahr. But the Tsu-sima stream, as it has been named by Schrenck, does not flow constantly in the direction from south to north. Under the action of the polar winds it is deflected in winter towards the south at least on the surface, and it then sweeps round between the Lu-chu Islands eastwards to the Kuro-sivo. But, owing to its small volume, its influence even in summer is of secondary importance in determining the oscillations of the temperature. Between the two slopes of the Japanese Archipelago the contrast in this respect is most striking. Here the isothermals traced from west to east are far from coinciding with the parallels of latitude. The mean temperature at equal distances from the equator is much higher on the east than on the west side, where the mountains of like elevation remain snow-clad for a considerably longer period of the year. Pending more numerous and accurate meteorological observations, it may be stated in a general way that the isothermals are deflected more and more towards the north as we approach the Arctic zone. Thus, while the difference between South Japan and the corresponding coast of China is scarcely more than 3° Fahr., it exceeds 8° Fahr. between Yeso and Russian Manchuria. Thanks also to the moderating effects of the Pacific throughout the year, the periods of extreme cold and heat are delayed till February and August respectively. September is normally a warmer month even than July.

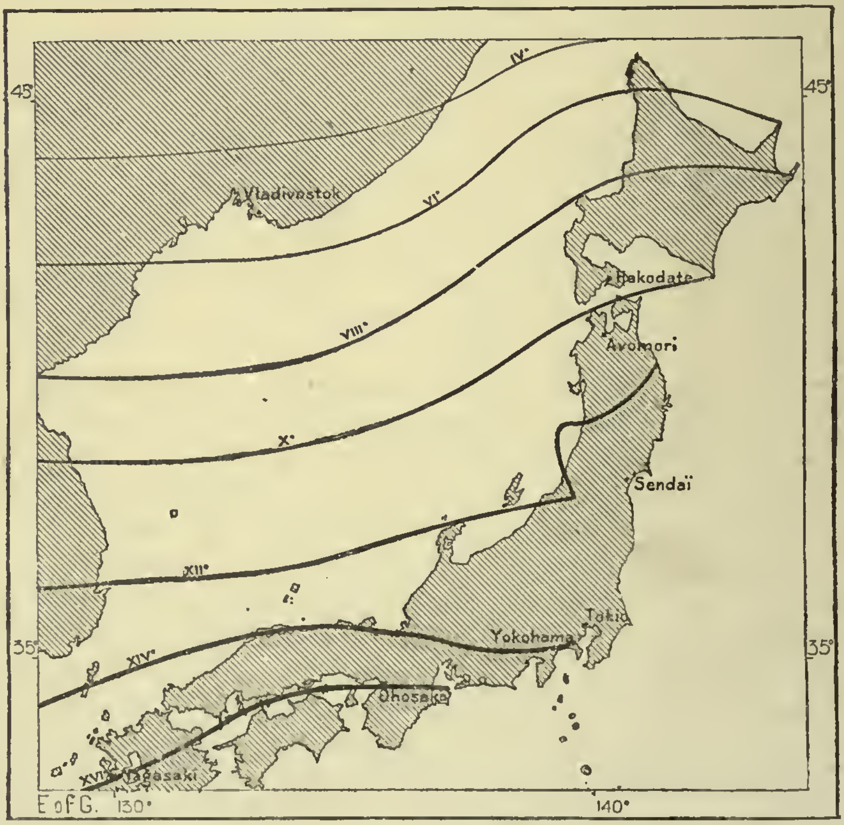
* "Unbeaten Tracks," i., p. 212.

† A. H. Keane's "Asia," p. 612.

Notwithstanding the advantages of its insular position, Japan is none the less affected by the general influences, which on the mainland everywhere tend to lower the temperature as we proceed eastwards. Under the same parallel Japan has, on the whole, a climate eight or ten degrees colder than that of Europe. No part of the archipelago is free from snow and ice, and in the central districts of Hondo the ground has occasionally remained for several days covered with snow to a depth of over 40 inches, while in Yeso the glass has been known to fall as much as twenty-eight degrees below freezing point. As elsewhere in the extreme

Fig. 181.—Isothermals of Japan.

Scale 1 : 15,000,000.



300 Miles.

east, the winter period in Japan coincides with the prevalence of the northern, and especially of the north-west polar winds, whose normal direction ought to be north-east and south-west, but which are deflected to the south-east by the influence of the Pacific basin. On the west coast the winter gales are so fierce as almost to arrest the navigation during their prevalence. Even the steam service between Nihi-gata and Hakodate is interrupted, and in several of the coast towns the houses are protected from the fury of the storms by screens constructed of hoardings with the interstices filled in with brushwood and moss.

These polar winds are followed in April or May by the tepid south-western monsoons, which, however, are frequently interrupted throughout the summer by intervals of calm. Towards the end of summer, and especially in September, when the temperature of the marine waters is highest, and when the air is charged with vapours, the least atmospheric disturbance may give rise to a whirlwind, at times sufficiently violent to be described as a typhoon. These cyclones prevail especially in the south and throughout the Lu-chu Archipelago, but they never advance northwards beyond Sendai Bay on the east coast of Hondo, and are mostly confined to the area of the Kuro-sivo current. This dangerous period of aerial disturbances is succeeded by the finest season in the year, a clear and bright autumn, genial and refreshing after the relaxing summer heats. Owing to the greater regularity of the annual winds, the alternation of the seasons is far more uniform in Japan than in the temperate regions of West Europe. Hence the various expressions introduced into the language, to denote at once the season of the year and the state of the weather, which ought to normally correspond with it. Formerly it was fashionable to begin correspondence with long phrases referring to these regular changes of the weather. "Now that the ice has melted, the trees are budding, and you flourish more and more in the enjoyment of perfect health, I address you these lines, written with the pencil. . . ." Such was the invariable opening of letters written in spring.

The rainfall as well as the temperature is regulated by the monsoons. Except in Yeso and on the west side of Hondo, the winter season is nearly everywhere very dry, and the contrast between the two slopes is easily explained. The north-west winds, always accompanied by fine weather along the coast of Russian Manchuria, become charged with moisture while crossing the sea, and when they strike the Japanese uplands this moisture is precipitated in the form of snow. In some of the higher districts the snow lies so thick on the ground that the people are obliged to take refuge in the upper storeys of their houses, and snow-shoes then become universal, as in Canada. But beyond the crests of the hills, the atmosphere is free from clouds, and the sun shines brightly throughout the winter months on the lands facing the Pacific. On the other hand, both slopes are exposed to heavy showers throughout the summer monsoons. The downpours will at times last for days together, and on one occasion, when it rained incessantly for thirty hours at Yokohama, all the brooks rose from 10 to 16 feet, while the rivers were transformed to lakes. The rains coinciding with the summer heats and with the evaporation from the rice grounds, which cover such a large surface, the whole land now becomes sodden with moisture, and while vegetation flourishes with a rank growth, men and animals pine in the oppressive and dripping atmosphere. The rainfall is altogether scarcely inferior to that of the tropics, and is about double that of West Europe. Thanks to these downpours, the Sea of Japan is far less saline than the Pacific, and consequently freezes much more rapidly. In this almost land-locked basin the tides are also very low, rising on the coast of Sado scarcely more than 22 inches.

The climate of the archipelago agrees on the whole very well with the European

constitution, and is in this respect so superior to the adjacent mainland that Japan is now generally looked upon as a sort of *sanatorium* for the English residents in Hong Kong and Shanghai. The chief drawbacks are the excessive moisture of the early summer months, which is somewhat enervating, and the sudden chills of autumn and winter, which are very trying to invalids. "To compare Japan as to climate with England, the former has a hotter summer, but a clearer and drier winter; a heavier rainfall, but fewer rainy days; a spring comparable to that of England, and an autumn far surpassing anything England can show, at least at the same season and for the same length of time; in short a climate which, if barely so healthy, has the advantage of being more thoroughly enjoyable." *

Vegetation.

Owing to the copious rainfall, the relatively temperate winters and moist summer heats, the flora of Japan is distinguished by extraordinary richness and vigour. The largest trees may be easily transplanted, and many species, which since the tertiary period have disappeared in China, continue to flourish in this archipelago. Thousands of plants from Malaysia, Indo-China, the Himalayas, Korea, Manchuria, and even America, spreading over now submerged lands, or whose germs were carried either by birds or the oceanic currents, have found a suitable home in these favoured islands. Apart from those introduced during the historic period from China or Europe, Franchet and Savatier have enumerated altogether 2,743 species, grouped in 1,035 genera and 154 orders. And although the flora is relatively well known, the future exploration of Yeso, and of some more secluded districts in the other islands, will doubtless increase these figures. Of the genera, no less than 44 seem to be peculiar to the Empire of the "Rising Sun."

In the Kuriles the birch, poplar, and willow grow in all the sheltered valleys; while Kunashir has its oak groves, although the trees seldom exceed 20 feet in height, except in the glens. For fuel and building purposes, the natives of this group rely mainly on drift wood. The mulberry and tea plant are cultivated in Hondo as far as Tsugar Strait, and even Akita is one of the chief centres of sericulture. Throughout the southern regions, as far north as Tokio, the vegetation acquires its dominant aspect from the intermixture of Malaysian and Indian species with those of the temperate zone. Yet the sugar-cane is limited by the southern shores of Hondo, while the larger varieties of the bamboo, over 60 feet high, are not found in the wild state. The palm is not yet fully acclimatised, nor does the fruit of the banana come to maturity. In Japan there are scarcely any grassy lands, nor even meadows properly so called. Wherever tillage has not given a uniform aspect to the vegetation, the land is shaded either by large trees or by shrubs and woody plants interspersed with herbage and creepers, hundreds of different species often presenting themselves within the field of vision. No more lovely flowering garden can be seen than these natural gardens of the Japanese land-

* "The Land of the Morning," p. 23.

scape. Yet amid these countless flowers, conspicuous amongst which is the snow-white

Fig. 182.—Japanese Landscape—View taken at Fuzisava.

camelia, we nowhere meet either the pinks and ranunculi of Europe, or even the papilionaceous varieties, or the common sweet smelling plants of the West. On the

whole, the flowers are more brilliant, but less odoriferous than in our temperate zone. On the other hand, the forests present a greater diversity of species than in any other country, the tropics themselves not excepted. During a short stroll, and without leaving the beaten track, the botanist will meet with a hundred different varieties, for Japan, even more than China, is especially distinguished for the large proportion of its arborescent species. Nowhere else within an equal range are there met so many different kinds of conifers and caducous trees, and the bright red or scarlet autumnal tints of the Japanese woodlands are even more beautiful than those of North America. Unfortunately, in many upland regions, the forests have been destroyed, and replaced by thickets of shrubs and creepers.

The finest forests clothe the hillsides between 1,500 and 3,000 feet above sea level. But the splendid cryptomeriæ, the glory of the land, are no longer found in the wild state north of Tokio. The avenues of these trees in the Tosan-do district and in Yeso have been planted by the hand of man. The Hinoki cypress (*chamæcyparis*), used in the building of shrines and for other religious purposes, being a hardier plant, is still found at an elevation of 5,500 feet in the Tosan-do Highlands. Leafy trees scarcely rise higher than 5,000 feet, but the spruce and larch are met at a height of 6,500 feet, while rampant conifers creep up to 8,000 feet and upwards.

Except the potato and tobacco, of American origin, all the cultivated plants come from the East, whence Japan received its improved agricultural methods as well as its other arts. Rice, the mulberry, the cotton and tea plants, as well as most of the fruit-trees of the temperate zone, have been acclimatised. But the damp climate tends to swell the fruits, to the detriment of their flavour, so that the products of the Japanese orchards are, on the whole, far inferior to those of Europe and the United States.

"Very misleading statements have been made as to both the extent and the lucrativeness of agriculture in Japan. For instance, it used to be said that the mountains of Japan were cultivated to their summits. How wide this statement is from the truth will appear from the fact that, of the 28,000,000 *cho* (one *cho*= 2·4507 acres) of land in Japan less than $4\frac{1}{2}$ millions are cultivated. Of the remainder far the greater part is covered with forests. It is true that the plains are cultivated with extraordinary care, and that among the lower hills every spot to which water can be brought is terraced for rice-culture. But there are great mountain tracts which have scarcely been brought under the sway of man, and of these as well as of the drier slopes above and around the paddy-fields, much is capable of cultivation.

"Then the luxuriant verdure of the country—the most luxuriant outside the tropics—is apt to give a mistaken notion as to the fertility of the soil. We see everywhere a magnificent flora. The plains are adorned in summer with every variety of green, from that of the young rice to that of the veteran pine. The valleys luxuriate in an overwhelming mass of foliage, and the mountain-slopes are for thousands of feet clad with an unbroken mantle of trees. Nevertheless it is true

that the soil of Japan is not naturally fertile. It is mostly either volcanic or derived from igneous rocks, in some places, as in the great productive plain of Musashi, it is directly drawn from volcanic tufa and ash. The extraordinary profusion of plants growing in a state of nature is due to the climate more than to the soil. Besides it should be noticed that these consist very largely of coniferous trees and other evergreens, plants which least of all tend to draw from the soil's resources. Then the productiveness of the cultivated land is largely due to careful manuring. This and the climate together make it possible for the Japanese farmer to gather two crops off one field in the same year. 'A new field,' says a Japanese proverb, 'gives but a small crop'—a saying which strikingly shows that the Japanese themselves have little faith in the natural fertility of the soil. The Japanese farmer treats his soil as a vehicle in which to grow crops, and does not appear to regard it as a bank from which to draw continual supplies of crops. Thus he manures every crop, and he applies the manure to the crop, not to the land.

"Nowhere is there more neat and painstaking tillage than in Japan. All the sewage of the towns and villages is utilised as manure. Of the 4⅔ million *cho* under cultivation 2½ million consist of paddy-fields, which yield on an average about 30 bushels of clean rice per acre, and the total produce of rice per annum is about 170,000,000 bushels, that of wheat, 35,000,000 bushels, and of barley 55,000,000 bushels." *

Japanese Fauna.

The land being almost everywhere brought under cultivation up to the very mountain gorges, Japan has preserved but a very small number of the wild animals by which it was formerly peopled. The beasts of prey are represented by two species of the bear, one of which, peculiar to Yeso, resembles the Californian variety, and the extinct cave bear (*ursus spelæus*). The Japanese bear, properly so called, which is still met frequently enough in the upland districts of Hondo, is much smaller, and distinguished from all its congeners by its hanging lips. The wolf, which differs only in its smaller size from the European species, is now rare, while the so called wild dog, resembling the Australian dingo, has disappeared from the southern regions, where it formerly existed. The fox, which, like most other animals, is smaller than the continental variety, is both numerous and extremely daring, penetrating even into the towns, and visiting the little rural shrines where food is deposited in honour of Inari, god of the rice grounds. In the popular fancy it has become the companion of this deity, who is always represented accompanied by two foxes, carved in wood or stone. A local superstition credits this animal with the power of assuming the form of a young woman, in which disguise it is apt to beguile benighted wayfarers. On the other hand, the badger is endowed with the faculty of transforming itself to articles of furniture or kitchen utensils, for the purpose of playing practical jokes on the industrious housewife. Similar magical virtues are also attributed to the cat.

A kind of monkey, the saru (*macacus speciosus*), with a rudimentary tail and a

* "The Land of the Morning," p. 9.

red face, differing but slightly from the Barbary variety, is found in Hondo as far north as the Tsugar Strait, the extreme northern limit of the quadrumana in East Asia. A species of wild boar, an antelope, a deer, several kinds of rodents, nine varieties of the bat, and various cetacea, complete the series of local mammals, of which, apart from the marine animals, Wallace enumerates altogether thirty species, all except five peculiarly Japanese. The genera, however, differ in no respects from those of the mainland, while the salient features of this fauna, resembling those of Manchuria and China, recall the time when the archipelago was connected with the mainland. Some traces are also found of relationship between the animals of Nip-pon and North America, which are also attributed to an isthmus of dry land formerly uniting the two northern continents. Nevertheless, the differences now existing between the allied species show that all land communication has been interrupted for long geological periods.

Fig. 183.—Badger: Fac-simile of a Japanese Design.

The Japanese avifauna, better known than the mammalia, is less varied than might be expected from the proximity to China. While the latter region possesses over four hundred, Nip-pon has no more than two hundred and fifty species, nearly all resembling those of the mainland. In summer many birds migrate northwards across Sakhalin or the Kuriles, and according to Seebohm there are only eleven species undoubtedly distinct from those of other regions. But amongst those common to the archipelago and other parts of the Old World, it is remarkable that several are separated from each other by thousands of miles. Thus a kind of pigeon unknown in China is peculiar to the Himalayas, Java, and Japan, while a Japanese jay is met elsewhere only in Europe, a distance of 6,000 miles. These species evidently at one time occupied all the intervening spaces, where, owing to changes in the surroundings they have gradually become extinct, and are thus now confined to narrow areas at either extremity of their former

domain. Altogether the Japanese ornithological world presents much analogy to that of temperate Europe, each species being represented in both regions by corresponding forms. Nevertheless the ototo-gisu, the king of Japanese songsters, fetching as much as £80 in the market, is not a nightingale, as in Europe, but a member of the cuckoo family.

"The crow forms a salient feature of the landscape, especially in Yeso. Here there are millions of them, and in many places they break the stillness of the silent land with a babel of noisy discords. They are everywhere, and have a degree of most unpardonable impertinence, mingled with a cunning and sagacity which almost put them on a level with man in some circumstances. Five of them were so impudent as to alight on two of my horses, and so be ferried across the Yurapugawa. In the inn-garden at Mori I saw a dog eating a piece of carrion in the presence of several of these covetous birds. They evidently said a great deal to each other on the subject, and now and then one or two of them tried to pull the meat away

Fig. 184.—Fac-simile of a Japanese Bird Design.

from him, which he resented."* The Japanese crow is considerably larger than the European species, being about the size of our ravens, and fully a match in strength and courage for small dogs.

Legend fills the popular fancy with monstrous dragons, with whom the heroes of the olden times had to do battle. These reptiles have now degenerated to harmless snakes, the only venomous animals in the archipelago being a trigonocephalous species, from which a healing drug is extracted, and a little crustacean of the order of the cloportæ. One of the most remarkable local reptiles is a gigantic salamander, the sanzio-uvo (*Sieboldia maxima*), that lives on fish and frogs, but is now becoming rare even in Japan. Beetles, butterflies, and other insects are extremely numerous, as is also the marine fauna, although several species of fur-bearing cetacea have already been exterminated. The beaver has also disappeared from several of the Kurile Islands, where it was formerly very common.

* "Unbeaten Tracks," ii., p. 129.

Compared with European peoples, the Japanese possess a very small number of domestic animals. The horse, imported from Korea, is of a small, shapeless breed, very vicious, but vigorous, and possessed of great staying powers. The Satsma breed, mentioned in the fourteenth century by Matouanlin, is nearly extinct, and most of the horses now employed in the Yokohama circus are brought from Mongolia. Holding very small farms, the peasantry have no great need of live stock, hence oxen are rare, and in some districts absolutely unknown. From the eighth century of the vulgar era till recently the use of meat was forbidden, and all knackers and tanners were regarded as infamous, and under the name of Etas classed with actors and mendicants, as *hi nin*, or "no men." But under the influence of European ideas, the townsfolk have recently taken to an animal diet, and the breeding of cattle for the market has already made considerable progress. But owing to the damp climate, goat and sheep farming has not proved successful. The ass also suffers from the prolonged rains, while the European pig thrives well.

Inhabitants—The Ainos.

Except in the outer islands of Yeso, the Kuriles, and Lu-chu, the present population of Nip-pon is one of the most homogeneous on the globe. From Kago-sima to Avomori Bay, across ten degrees of latitude, the natives have everywhere the same speech and customs, with the full consciousness of their common nationality. But although now thoroughly fused in one people, they do not seem to belong to one stock originally, and are only indirectly connected with the aborigines of the archipelago.

The oldest traditions and records all speak of the ancient savages, the "Eastern Barbarians," Yebsis, Yebis, Yemisi, Mo-zin, or Mao-jin ("Hairy Men"), who formerly occupied the northern portion of Hondo, and who were the ancestors of the present Ainos. There is certainly no direct evidence to show that the Japanese are the civilised kinsmen of these northern barbarians, and the only probable relationship between them is such as may be due to crossings continued from age to age on the border lands. Although no Yebis may now be found in the north of Hondo, it is, nevertheless, certain that all were not exterminated by the conquering Japanese in the fifteenth century. Under the name of Adzma Yebis, they have become intermingled with the civilised intruders, and their physical features may still be traced in the present mixed population of the country, just as the stone weapons and other implements used by them are occasionally found in the ground. The women have here, as elsewhere, best preserved the aboriginal type, and the inhabitants, especially of the secluded Oga-sima Peninsula, still show a marked resemblance to the Kurile islanders. Ainos blood has even been traced as far south as the plains of Tokio, although the pure type is at present confined to Yeso, the Southern Kuriles, and the south of Sakhalin. According to the census of 1873, there were only 12,281 Ainos at that time in Yeso, and the whole race numbers at present probably less than 20,000 souls. The few Kurile families occupying the northern islands of that archipelago are not to be distinguished from those of the

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neighbouring Kamchatka Peninsula, and some Aleutians are also found in the islands of Simusir and Urup.

According to Golovnin, the word "Ainos," like the names of so many primitive peoples, simply means "Men." Thinking themselves the centre of the universe, they sang of old, "Gods of the sea, open your divine eyes. Wherever your eyes fall there echoes the Aino speech." But a Japanese etymology quoted by Satow explains the word "Aino" to mean "Dog" (Inu), and an old tradition refers the origin of the race to a dog and a Japanese princess banished northwards. The Aleutians have a similar tradition, and seem to be very proud of their canine descent, pretending that for a long time they had paws and tails like those of a dog, but were deprived of them on account of their crimes.

Most writers affiliate the Ainos to the other Mongoloid peoples surrounding them, and their small size, clear complexion, black hair and eyes, are taken as proofs of their affinity to the Japanese. But others group the Ainos with the Kamchadales, Koriaks, Aleutians, and some other northern peoples in a separate division of mankind, while they are by others regarded as a branch of the Eskimo or of the Polynesians, or even of the Western "Caucasic" stock.

Certainly the ordinary Aino type differs greatly from the Japanese. The complexion is lighter, the forehead broader and higher, the cranial capacity vastly superior, the nose more prominent, the eyes larger, more open and perfectly straight, like those of Europeans. But they are distinguished from all their neighbours chiefly by the great abundance of their hair, from which circumstance they were commonly alluded to by Siebold, Krusenstern, Golovnin, and other older writers, as the "hairy Kuriles," from the name of the islands occupied by several of their tribes. The Japanese annals also describe them as a species of wild beast, with manes and beards 4 feet long. "The first Aino," says the legend, "was suckled by a she-bear, whence he and all his descendants became covered with hair. Proud of his long beard, which distinguishes him from the other races whom he meets, the Aino regards it as some sacred appendage, which nothing will induce him to shave. In this respect, as well as in his features and expression, he bears a singular resemblance to the Russian peasant, with whom he might easily be confounded. Most travellers describe the women as repulsive, and apparently belonging almost to a different race from the men. But notwithstanding their small eyes and thick lips, Miss Bird, who visited them in their mountain homes, tells us that she met many women of very comely appearance even amongst the old people. The children, of whom their parents are extremely fond, are models of grace and beauty.

The average Aino is about the middle height, broad-shouldered, full-chested, very strongly built, with short muscular arms and legs, and disproportionately large hands and feet. The bodies of most adults are covered with short, bristly hair; and travellers have compared that on the backs of the children to the fine soft fur of a cat. The foreheads are generally high, broad and prominent, at first sight giving the impression of an unusual capacity for intellectual development. The nose, although short, is straight and the cheek-bone low, while the full eyebrows

form a straight line nearly across the face. The eyes are somewhat deep-set and of a rich liquid brown colour, with a singularly soft expression, corresponding to the gentle and kindly character of the people. The skin is described as almost white, or else of a delicate olive brown tint, thin and light enough to show the changes of colour in the cheeks.

What little is known of the Aino language is sufficient to show that it has no sort of affinity to that of the Japanese, which greatly surpasses it in softness. But although many words end in sibilants, it is modulated with an almost musical accent, and spoken with such slight dialectic differences, that the interpreters from the Kurile Islands have no difficulty in understanding the people of South Yeso. There is no literature, and hitherto none of the Ainos have learned to read or write, except a few youths sent to the schools at Tokio. But they have an excellent memory, and are quick at sums. By means of little notched sticks and knotted strings, like the Peruvian *quippos,* they keep all their accounts on the decimal system, and readily detect any attempts of the dealers to cheat them. Their wooden utensils, with carved designs, also attest their artistic skill and good taste, while the musical faculty is highly developed. Their melancholy airs are sung with a shrill voice, and their string instruments are ingeniously constructed of the tendons of the whales stranded on the coast.

The Ainos lead a wretched existence exclusively engaged in hunting and fishing. They follow the bear, deer and fox, and capture all the large cetacea except the whale, to whom they thus show their gratitude for driving the shoals of herrings up the creeks in spring. When a bear's cub is found in the lair, it is brought home and given to a nurse, who suckles and rears it with her own children. For six months the animal is treated as a member of the family, but in autumn a great feast is held, winding up with a banquet, at which the bear is devoured. "We kill you, oh, bear," they cry while sacrificing it, "but you will soon return to us in an Aino." The head stuck on a stake in front of the hut henceforth protects the household of its former host. The heads of deer are also wrapped in leaves and placed on poles, generally in the forest where they have been struck down. Such are the chief religious ceremonies of the Ainos, who, in this respect, belong to the same group as the East Siberian tribes, amongst whom travellers have observed analogous rites. Like the Golds of Manchuria, the Ainos are very fond of the company of animals. In nearly all the villages bears and eagles are kept in large cages, and become objects of family worship. Sun, moon, and stars, are also worshipped; besides "the sea which feeds, the forest which protects" them, all the forces of nature, and the *Kamui,* or heavenly and earthly spirits, which are found both in the old Japanese cosmogony and in that of the East Siberian races. They also invoke the Japanese hero Yositsune, who vanquished their forefathers, because the legend praises his clemency to the conquered. Strangers, to whom they show hospitality, are also honoured by the title of Kamui, and, like the Japanese Sintoists, they profess a profound devotion for the shades of their ancestors. The house of the departed is levelled, and the materials burnt or dried, after which a new dwelling is erected to him, resembling the one he occupied on earth. The

pikes and other objects stuck round these mortuary shrines are carefully preserved, and the offers of strangers to purchase the skulls of the dead are rejected with horror. There is no sacerdotal caste, all officiating in common, with few rites beyond dancing, and copious libations of *saki*, or rice brandy.

In the community, the chief, generally the member of the tribe who possesses most arms and bears' heads, has no rights or authority except as arbitrator when disputes arise. If public opinion charges him with the least partiality, he is at once deposed, and succeeded by the man whom his decision may have wronged. Polygamy is permitted, and marriages are common, if not between brother and sister, certainly between near relations. Although the women work more than the men, they are not considered in any way their inferiors. The wife, who keeps an orderly household, enjoys an equal share with her husband in the management of the common interests, and nothing is done without her advice being given. Her rank and rights are clearly delineated in the tattoo marks traced by her mother. These marks are begun at the age of five, and continued till she is marriageable, when her toilet is complete. By means of soot rubbed into the incisions a sort of moustache is described on the upper lip, while the hands and fore-arms are embellished with an intricate arabesque piece of embroidery. All the patterns are strictly determined by traditional usage, but the practice of tattooing has recently been forbidden by the Japanese Government.

Still independent of, and even feared by, the Japanese down to the middle of the sixteenth century, the Ainos continued to occupy the northern part of Hondo, where the town of Akita served as the common mart for the two races. But they have long disappeared from the large island, and are now seldom seen on the south coast of Yeso. Honest, good-natured, active, individually courageous, although inspired with a superstitious dread of the government, they have neither the moral force nor the material resources needed to hold their own against their powerful neighbours. The use of fire-arms, with which they pursued the prey, has been forbidden, and the Japanese fishermen come to fish at their very doors. With no companions except their dogs, they are unable to turn their attention to stock-breeding, and the little agriculture which they have learnt is limited to planting a few vegetables round their houses. They wear coarse, but almost indestructible, garments, made by their women from the bark of trees, and in winter lined with skins and furs. Without being actually ill-used, they are always cheated by the Japanese; and, notwithstanding the protection afforded by the authorities, they are demoralised by want, alcohol, and all its attendant evils. Many have married Japanese women, and all are more or less familiar with the language of their rulers, so that they must inevitably soon die out or become absorbed in the superior race. Like so many other obscure and half-savage races, they are threatened with extinction by civilisation itself. As if conscious of their approaching doom, they have become indifferent to life, and, although gay and cheerful, they will commit suicide at the least check or trouble. But infanticide is not practised except in the case of twins, when one is dispatched to save it from a life of hardship.

The Aborigines of Japan.

The dominant people in Japan are evidently a mixed race, in which the Aino element is but slightly represented. According to the prepossession of observers, they have been affiliated to various stocks; but although Whitney and Morton regard them as members of the Caucasic family, most anthropologists class them with the Mongol races of Siberia and East Asia. The Chinese records referring to the land of Wo, that is, of Japan, before the inhabitants were acquainted with the

Fig. 185.—Primitive Populations of Nip-pon, according to the Japanese Annals.
Scale 1 : 15,000,000.

art of writing, mention certain facts attesting the preponderating influence of Chinese civilisation even at that remote epoch. Migrations must have taken place from the Yang-tze basin to the adjacent archipelago, and according to one legend the ancestors of the Japanese race were three hundred young men and women sent across the seas by the Emperor Tsin-Shi-hwangti in search of the "flower of immortality." Many have suspected the presence of Malay elements amongst the inhabitants of Nip-pon, while the curly hair and dark complexion common in the south have been referred by Siebold to a mixture with "Alfuros," Melanesians, and Caroline Islanders. Vessels may certainly have often drifted northwards with the equatorial

current and the Kuro-sivo, and it is possible that Japan may have in this way been peopled from the Pacific or East Indian Archipelagoes. At the same time no historic document mentions any voyages of this sort before the arrival of the Europeans. The annals speak only of the relations of the Japanese with the neighbouring islanders and with the peoples of the mainland, whence the communications were in any case more easily established. Passing from Hondo and Kiu-siu to Iki, and thence by Tsu-sima and the Korean Archipelago to Korea itself, mariners have the land always in sight, while, according to the direction of the trade winds, even light craft are constantly carried from one coast to the other. Thus it was that the Kmaso or Yusu occupied simultaneously the south-east corner of Korea and the country of the Yomodz or Neno Kumi in the west of Japan. They were not "pacified," that is, subdued, till the second century of the vulgar era. The Yamato, or Japanese properly so called, seem to have originally dwelt on the southern shores of the archipelago facing the Pacific. But before any mention occurs either of Ainos, Yuşu, or Yamato, the islands were already peopled. On the plain of Yedo and in several other parts of Nip-pon refuse heaps have been found resembling the Danish *Kjökkenmöddinger*, and containing, besides shells different from the living species, earthenware and human bones mingled with those of monkeys, deer, wild boars, wolves, and dogs. The race associated with these remains would seem to have been anthropophagi.

The Present Japanese Race.

Ethnologists have attempted to describe the characteristic Japanese type. But although at first sight few differences are detected, foreigners residing in the country soon begin to distinguish two distinct types, which correspond partly to two social classes, and which the native artists have at all times reproduced and even exaggerated. These types are those of the peasants and the aristocracy. The features of the peasant approach nearest to those of the East Asiatic peoples. He has the same broad, flat face, crushed nose, low brow, prominent cheek bones, half open mouth, small black and oblique eyes. He is best represented in the northern division of Hondo, in the low-lying plain of the Tone-gava and on the highlands stretching west of Kioto. The nobles are distinguished by their lighter complexion, more pliant and less vigorous body, more elongated head, elevated brow and oval face. The cheek bones are but slightly prominent, the nose aquiline, mouth small, eyes very small and apparently oblique. Artists have accepted this aristocratic type as the ideal of beauty, transferring it to their gods and heroes, and exaggerating it in their portraits of women. Being found chiefly in the Kioto district and on the slope facing the Pacific, it has been argued that these features belonged to a conquering "Polynesian" element from the eastern islands. But all shades of transition are now found between the two extremes, and owing to crossings and shiftings of fortune many of the nobles might be taken for plebeians, while the oval face and aquiline nose of the aristocracy are often found amongst the lower classes. On the whole, the Japanese face, with its olive complexion, lozenge shape and

receding brow, is far from answering to the Western ideal of beauty, and to most foreigners seems decidedly plain. But this plainness in the case of the women is often counterbalanced by a graceful carriage, charming expression, and tender glance. Those of Kioto and the southern regions bear the palm for beauty in the estimation both of natives and foreigners. Amongst the Samurai aristocracy many beardless youths betray a surprising resemblance to young women.

The inhabitants of the Lu-chu Archipelago form a transition between the "Polynesian" type of Japan and the almost Malay features of the Formosans. The eyes are nearly straight, the complexion of a somewhat olive tint, the beard fuller than that either of the Japanese or Chinese, and the hair usually gathered in chignon fashion on the top of the head. But these islanders are especially distinguished by their gentle expression and graceful manners. Maxwell, Basil Hall, and the other early European visitors, speak with enthusiasm of this race, which seems to lack no virtue except the strength of character and dignity inspired by the enjoyment of liberty. In Lu-chu family names are borne only by the two privileged classes of the aristocracy and nobles of the second rank. The plebeians wear a different dress, and are forbidden the use of silver hair-pins and umbrellas.

Fig. 186.—Japanese Woman.

To whatever class they may belong, all the Japanese are of low stature, averaging from 5 feet to 5 feet 2 inches in the men, and under five feet in the women. The lower orders are mostly robust, broad shouldered, very straight, and endowed with a remarkable power of endurance. The Japanese coolie will carry a heavy load at a rapid pace for hours together, without stopping even when ascending steep mountain passes. Attendants on foot keep up with their master's horse crossing the country at full gallop, and the acrobats are unsurpassed in strength and activity by those of the West. A tendency to obesity is found only amongst the wrestlers, amongst whom the Mongolian type seems, by a sort of atavism, to be preserved to a surprising degree. The artisans and peasantry are generally well proportioned, except that they are often somewhat knock-kneed, a defect due to the way children are carried on their mothers' backs. They also become prematurely aged, both sexes being usually covered with wrinkles about their thirtieth year, and retaining of youth little beyond their white teeth and fiery glance.

The prevailing malady is anemia, which sooner or later affects four-fifths of the

whole population, and which is attributed to the almost exclusive use of rice and vegetables, possessing little albumen and fat. Small-pox is also very prevalent and much dreaded, although the Chinese methods of inoculation have long been known. Even since the introduction of vaccination by Siebold at the beginning of the present century, this scourge still continues to leave its mark on the features of about two-thirds of the people. Notwithstanding their extreme cleanliness, the natives are affected by the taint of leprosy in every part of the archipelago, and especially in the Tokio district. Diseases of the chest and lungs are almost as fatal as in Europe; but scarlatina, erysipelas, puerperal fever, and many other Western maladies are absolutely unknown in the archipelago.

Few crossings have taken place between the natives and the Chinese settled in the seaports, although the number of children sprung from alliances between Europeans and Japanese women is already relatively considerable. The type of the mother invariably prevails, and according to Wernich, the children of English or German paternity seldom survive, while the issue of unions between Frenchmen and native women thrives well, and are even more vigorous and sprightly than their pure-blood Eastern playmates. The descendants of Portuguese Christians and the women of the southern islands call themselves Europeans, still bear the names of their Lusitanian forefathers, and generally make it a point of honour to speak English. But nearly all take Japanese wives, and the race has thus become assimilated to the indigenous type, except that the hair remains slightly undulating, the forehead higher, the face less prognathous, and the eyes less oblique than amongst the surrounding populations.

Fig. 187.—Japanese Girl.

It is no longer obligatory to wear the national dress, and in their eagerness to imitate foreign ways, the lettered and trading classes have adopted the European costume, which, although very unbecoming, has the advantage of helping to get rid of the old class distinctions. Formerly the style and colours of the clothes worn by both sexes in every social position were strictly regulated by law or custom. The usual material was cotton, silk being reserved for the rich, or for grand occasions. The *Kimono*, or robe of the women, differs only in its greater length and brilliancy from that of the men. In both the wide sleeves serve as pockets, and are usually filled with rolls of paper used as handkerchiefs or table-napkins. Hence also "sleeve editions" answering to our small "pocket editions"

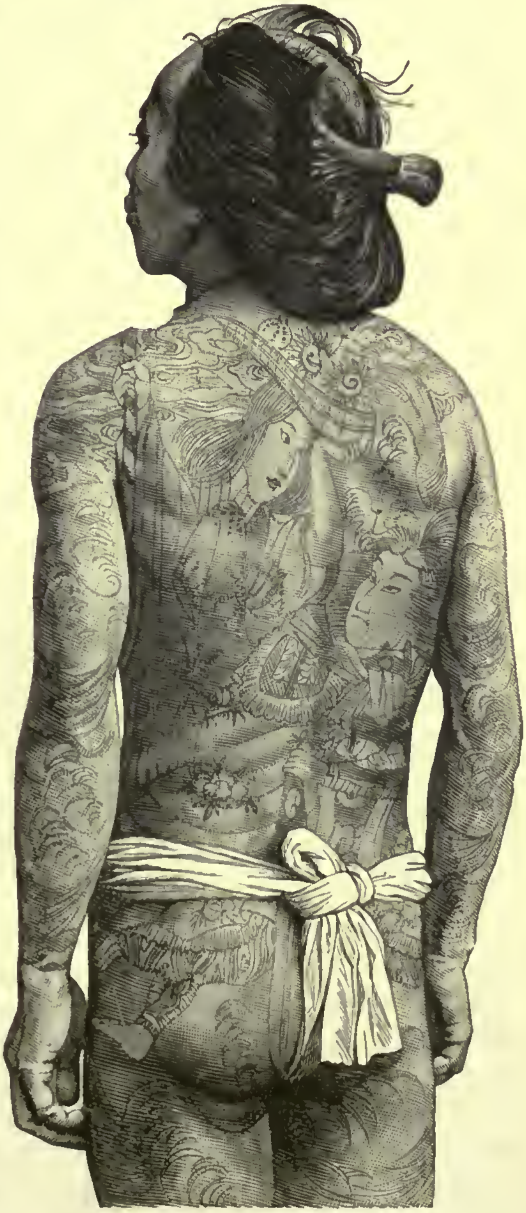
of books. The costume is completed by a skirt in the upper classes, or drawers amongst the poor, while several robes are worn one over the other in cold weather. During the rainy season the artisans and peasantry cover their clothes with straw

Fig. 188.—Japanese Musicians and Dealer.

or oil-paper cloaks. All except the coolies and couriers wear the so-called *hata*, high wooden clogs, which require great care in walking, and are even the cause of nervous affections. The European boot is ill-suited for the muddy streets, and

indoors they walk bare-footed on the fine matting of the floors. The head-dress, especially of the fair sex, is quite a work of art and much patient labour, consisting of a vast chignon of real and artificial hair, cunningly devised, and over which many hours are usually spent. Being unable to afford all this time every day, women engaged in work have their hair dressed once or twice a week only, and in order not to disturb the elaborate superstructure, they are obliged to sleep with the neck resting on a wooden pillow, so as to keep the head free from contact with the bed-clothes. A white cosmetic on the face and neck, crimson on the cheeks, the eyebrows blackened, the lips covered with gold leaf, and the teeth with a brown pigment, and the toilet of the high-born lady of the olden times may be pronounced completed.

Fig. 189.—Japanese Tattooing.



Tattooing has been almost entirely abandoned by the women of all classes, and its use, even by the men, has now been forbidden by the Government. We learn from Matoualin that the nobles were formerly more richly decorated than the plebeians. But in recent times the most elaborate art has been lavished on the couriers and others, obliged, by their occupation, to appear almost naked in public. The designs, mostly in red, white, and blue, are diversely interlaced without any symmetrical arrangement, but always with great taste, so that a graceful proportion is observed between the birds, dragons, flowers, and other more conspicuous objects. Thus a tree will be represented with its roots twined round the right foot, the stem growing up the left leg, and covering the back or breast with its outspread leafy branches, on which are perched birds of various kinds.

Made up as they are of so many heterogeneous elements, it is extremely difficult

to form a just estimate of the Japanese people, and the difficulty is increased by their consciousness that they are just now, so to say, on their trial. They are consequently apt to assume false airs; and as they have endeavoured to assimilate themselves outwardly to Europeans, by adopting a foreign garb, they, in the same way, affect the manners and tone of a nation long accustomed to Western culture. Except, perhaps, certain tribes of the New World, no people have developed to a higher degree the faculty of concealing their inward sentiments and preserving their equanimity under the most trying circumstances. Extremely reserved and sensitive to the opinion of others, they speak only after having well weighed their words, and maintain a sort of self-restraint in the presence of Europeans. Many officials have even taken to blue or coloured spectacles, in order the better to conceal their inmost thoughts; and even among themselves their outward indications of

Fig. 190.—Japanese Women.

anger, contempt, affection, or other strong passions, are singularly moderate, compared with the vehemence of many Western peoples. They suffer impassively without wringing their hands in despair, or appealing to the Deity with outstretched arms and upturned eyes. They have learnt from Europeans the custom of shaking hands, but it never approaches the hearty grasp of an Englishman. Mothers even rarely embrace their children; and this general reserve extends even to the demented classes, so that a "dangerous lunatic" is almost an unheard of phenomenon in Nip-pon.

The very effort to make a good appearance in the eyes of strangers speaks highly in favour of this interesting people. They are essentially kind-hearted, and nothing is rarer than instances of men rendered arrogant by their social position, and treating those beneath them with harshness. Those in the enjoyment of

power and privilege seek rather to avoid envy by their courtesy and consideration for others less favoured by fortune. No one, whatever his rank, assumes that haughty air which so many functionaries, great and small, elsewhere regard as their most highly prized prerogative. From the custom of bowing gracefully to each other, the Japanese have gradually acquired a natural attitude of deference, while the expression of the features generally reflects their kindly disposition. Even under extreme suffering patients preserve a mild glance and endearing tone. This innate amiability, conspicuous especially in the fair sex, is usually accompanied by the domestic virtues of temperance, order, thrift, and common sense. The young women united by temporary alliances with Europeans, as is the custom of the country, seldom fail to ingratiate themselves with them by their careful forethought, assiduous attention, and orderly management of the household. Strangers are surprised at the cheerfulness and calm resignation of the hard-working labouring classes, who adapt themselves to everything, and submit uncomplainingly to the greatest hardships and privations. Yet this resignation cannot be attributed to the want of a higher ideal. The eagerness with which the European arts and sciences have been welcomed shows how keen is the desire of progress amongst all classes.

The Japanese are now committed to the new social evolution by a sense of honour, which has ever been one of their main springs of action. The practice of *harakiri*, or *sappuku*, maintained for centuries amongst the nobles, attests the strength of will with which they are capable of asserting their personal dignity. Although not of native growth—for frequent mention is made of it in the Chinese annals—this custom has nowhere else become a national institution. Whether commanded by the government in order to spare the nobleman a dishonourable death, or voluntarily performed in order to be indirectly avenged on an opponent by compelling him to give life for life, the act was always executed with scrupulous nicety. No instance has been recorded of one of these determined suicides ever uttering an unworthy complaint in the presence of his friends assembled to witness his self-immolation. Many cases, on the contrary, are mentioned of heroes resolute enough to compose verses or write their last wishes in their own blood after disembowelling themselves. Yet these men did not throw away their life rashly, and except where honour, rightly or wrongly understood, was at stake, voluntary deaths have always been rare in Japan. But wherever the test of courage is demanded in either sex, the Japanese are excelled by no other people. The history of the forty-seven *ronin*, so determined in exacting vengeance for the murder of their master, so heroic in their self-sacrifice, is the most widely known in the country, and the graves of these daring men are still piously tended by the citizens of the imperial capital. The recent wars and revolutions also show that the people have not degenerated from the prowess of their forefathers, and we may rest assured that should Russia or any other Western power become engaged in hostilities with them, it will meet with a formidable adversary. Hitherto the European powers have obtained easy triumphs over most Eastern nations, thanks to the superiority of their armaments and discipline. But the Japanese people are not one of those which will henceforth

allow themselves to be conquered without a struggle, nor will civilisation have to deplore the disgraceful subjugation of 40,000,000 human beings who are rapidly placing themselves on a level with the most advanced states of Christendom.

While recognising the superiority of European science and industry, the Japanese are none the less, in certain respects even more, civilised than their foreign instructors. In all that regards frugality, self-respect, the sentiment of honour, mutual kindness and consideration, the mass of the people certainly stand on a higher level than most Western peoples. The humblest Japanese peasant has an eye open to the wild grandeur and softer charms of the landscape, and takes care to build his hut by the sparkling stream, in the shade of a leafy thicket, or on an eminence commanding a fair prospect of the surrounding scenery. His lowly dwelling is even usually adorned with flowering plants tastefully disposed. The country is not allowed to be disfigured by wayside inns erected on incongruous sites, and during the fine weather groups rather of tourists than pilgrims are everywhere met visiting the districts famous for their romantic beauty.

The chief defect of the people, one which they most frequently complain of in their own writings, is a lack of perseverance. Yet even this charge cannot well be brought against the mass of the laborious and industrious classes, but applies rather to the youth of the higher circles, who have perhaps been somewhat prematurely "civilised" in the European sense. These half-educated representatives of "Young Japan" have often shown a distaste for solid study, and pass easily from one undertaking to another. Hence the "prophets of evil" have foretold a sudden and terrible reaction at no distant date. But it is scarcely conceivable that a whole nation can thus retrace its steps and deliberately revert to the old order of things, especially when the progress already made is based on a solid scientific foundation.

Language and Letters.

Like the arts, social institutions, and general culture of the people, the national speech has been largely affected by foreign elements. The *Yamato*, or original language of the country, which has no relation to the Chinese, is an agglutinating polysyllabic tongue, affiliated by most writers to the Ural-Altaic family. Yet nothing but the vaguest resemblance has been detected between their structure, syntax, or vocabulary. Japanese is distinguished by great harmony, comparable in this respect to Italian, by full syllables and euphonic laws. The adjective always precedes its noun, and the object its verb, and there are neither articles, cases, moods, nor tenses, all the formal relations being indicated by particles or suffixes. The Yamato is spoken in its purity only in court circles, and by the caste of select courtesans, who were probably formerly priestesses of the Sinto religion. Elsewhere the current speech is the Sinico-Japanese, in which, however, the Chinese words have quite a different pronunciation from the Mandarin dialect. There is no instance in Europe of a similar intermixture of two languages. In English the

JAPANESE TYPES AND COSTUMES.

Teutonic and Latin elements have been thoroughly fused, whereas in Sinico-Japanese the Yamato and Chinese lie, so to say, in juxtaposition. The Lu-chu dialect is regarded as a distinct language, although nearly related to Japanese and written with the same syllabaries. It also contains many Chinese words introduced by the lettered classes. A portion of the Bible has been translated into this dialect by the missionary Bettelheim.

In Japanese there are two systems of transcription, of which the oldest are the Chinese ideographs introduced with the germs of the national culture. But these signs are so numerous that it requires a whole life to master them all. In the elementary schools as many as 3,000 are taught, but no one can claim to be educated if he does not know at least 8,000 or 10,000, which, after all, is scarcely a third or a fourth of the complete dictionary. Hence, from the earliest times efforts have been made to simplify the art of reading. Even before the introduction of the Chinese ideographs the people were acquainted with the Korean syllabary without adopting it. But later on they invented various original phonetic systems commonly spoken of as *Sinzi*, or "divine writings." At present there are no less than seven different syllabaries, of which six are of local invention. The *kata kana*, or "side writing," so called because added to the Chinese signs to determine their exact value, is in most use amongst the lettered classes. For correspondence, ballads, plays, and popular literature the *hira kana*, or "united writing," is chiefly employed. But neither of these adequately replaces the Chinese signs for abstract ideas and scientific subjects. The Sinico-Japanese words relating to mental conceptions, being monosyllabic, have dozens of homonyms difficult to be distinguished one from the other without special signs. Thus the curious mixture of an agglutinating and a monosyllabic form of speech known as Sinico-Japanese is unable to dispense with the two corresponding systems of writing—the Chinese ideographs and the "lateral" syllabary. The people fully understand how defective is the instrument used by them to express their thoughts. Nevertheless, the question has not yet been raised of rendering English obligatory in the schools for the purpose of gradually substituting a more convenient language for that at present current in the archipelago. Most technical and abstract terms are, however, now taken from the European languages, and more especially from English, instead of from Chinese, as heretofore. The Latin alphabet is also taught, and various attempts have been made to render its use more general.

The language itself is by no means deficient in terseness or power of expression. Its greatest defect is probably the absence of a relative pronoun, which occasionally produces involved and somewhat awkward constructions. There is also a great dearth of abstract terms, and of words expressing the more subtle distinctions of European philosophy. Nevertheless it is the opinion of Captain Brinkley, who has devoted much attention to the subject, that if only the serious defect of its complex writing system could be removed, the Japanese language might, with a little cultivation, soon be rendered a fitting instrument for the expression of Western science and literature.

Since the eighth century there has been a considerable literary development,

which if not "luminous" may at least be described as "voluminous." Poetry, the drama, history, and the natural sciences have been cultivated, and the intellectual evolution of Japan may be said to have run in parallel lines with that of the West. In the monasteries the old manuscripts were copied, chronicles compiled, theological and metaphysical treatises composed, while the "Courts of Love" were held during the twelfth and thirteenth centuries in the castles of the feudal lords, where the lettered warriors and strolling minstrels wrote their romances of chivalry, and recited their lyrical songs just as in Europe. The period of literary Renaissance coincides with the seventeenth century, after which comes the age of the encyclopædists. At present journalism and political writings are swelling the bulk of the national literature, which has been more or less affected by European influences since the middle of the eighteenth century, when secret societies were formed for the translation of Dutch works.

The Art of Printing in Japan.

From Mr. Satow's recent investigations, it appears that to a religious lady belongs the honour of having introduced the use of printing in Japan. In the year 764 of the new era the Empress Shiyan-toku, in fulfilment of a solemn vow, ordered a million small wooden shrines to be distributed among the Buddhist pagodas and monasteries throughout the archipelago, and directed that each of these shrines should contain a dharani or extract from the Buddhist sacred writings. The Sanskrit or Pali text of the dharani was to be printed in Chinese characters, on slips of paper about 18 inches long by 2 inches wide, so as to be easily rolled up and deposited in the interior of the shrines. A large number of these slips are still preserved in the monastery of Hofu-riu-zhi in Yamato, and facsimiles of some of them are often found reproduced in Japanese antiquarian works. Opinions are divided as to whether the plates from which these impressions were taken consisted of metal or wood, although they are now generally supposed to have been of the former material. The absence of all previous progressive steps leading up to this method of printing from the block or plate, shows that it was not a native invention, but introduced in the eighth century from China, whence most of the literature, religion, and philosophy of Japan had been previously borrowed. It is also noteworthy, that for a long time the art remained dormant, for an interval of no less than four centuries intervened between this first attempt and the appearance of the first printed book, which bears the date of 1172.

Nevertheless, the religious direction originally given to printing by the Empress Shiyan-toku left its impression on the productions of the press for a considerable period. Copies of the Chinese Buddhist works alone were for a long time regarded as worthy of being reproduced, and between the years 1278 and 1288 the whole Buddhist Canon was printed and widely circulated, while nothing was done for current literature, or even for the other religions of the Empire. Confucianism received no attention from the type-cutters till the year 1364, when a copy of the "Confucian Analects" was first published. This reprint, which is still in existence,

is highly valued on account of the many variations which it contains, and which often throw much light on the received text.

Apart from the Buddhist books not more than forty or fifty works are known to have been printed in Japan down to the beginning of the seventeenth century. A great stimulus was, however, then given to the art chiefly through the influence of the Koreans. After his first victorious campaign in Korea, Hideyoshi had brought back a large number of books current in that country, and the literary activity represented by these works, compared with the stagnant state of letters in Japan, wounded the national pride of the conquerors, and stimulated them to a healthy rivalry. An examination of the captured books soon revealed the fact that the Koreans possessed the art of printing with movable types, which they had no doubt derived from the Chinese, and which they seem to have practised as early as the beginning of the fifteenth century, if not earlier. The Japanese, always apt imitators, soon adopted this method, and the first book printed in Japan with movable copper types bears the date 1596. From that time onwards the press, in various parts of the Empire, has been busily engaged in reproducing every important book in Chinese literature. The native literature also soon began to avail itself of the same easy means of circulation. But recent indications seem to make it probable that the time is approaching when Japanese translations of European, and especially English, works will be mainly substituted for the publications both of the native and the Chinese writings. Mr. Fukusawa of Tokio has greatly distinguished himself in this direction. One of his classes lately translated the whole of Adam Smith's "Wealth of Nations" into Japanese, and several other important European works, especially those treating of philosophy, natural science and politics, owe their appearance to this learned teacher and his pupils.

Religion—Sintoism.

The religious thought of Japan, as of so many other countries, is just now in an evident state of transition. Most of the educated classes and even the lower orders in the towns entertain or affect a profound indifference for the various religions of local or foreign origin. Yet some of the outward observances are still generally retained, mainly through the influence of the women.

As in China, three cults co-exist side by side, and the same individual may even conform to all three. Of these the oldest is the national religion known as Sintoism, or the "Way of the Genii," which represents the conservative and reactionary element, which from the first protested against the intrusion of the Chinese language and culture. The *Koziki*, or "History of the Things of Antiquity," which embodies the Sinto teachings, is the oldest and most remarkable work in Japanese literature. The Confucian system is little more than a moral code. But Buddhism is at once a metaphysical and religious system, which consoles its votaries for the miseries of the present life, and holds out prospects of happiness or repose in the after state. Thus according to the times, places, and other circumstances, these elements may become diversely intermingled without being antagonistic, although

under exceptional conditions and political reactions religious wars have occasionally broken out.

Like the Chinese, Korean, and Siberian aborigines, the Japanese had originally no other divinities except the forces of Nature, with which they associated the souls of the dead and the eight million aerial and terrestrial genii. How live at peace with these countless hosts without endless conjurings and offerings? And how was the head of the family to thwart the malignant, and propitiate the beneficent spirits,

Fig. 191.—Nikko and the Upper Tone-gava.
Scale 1 : 350,000.

6 Miles.

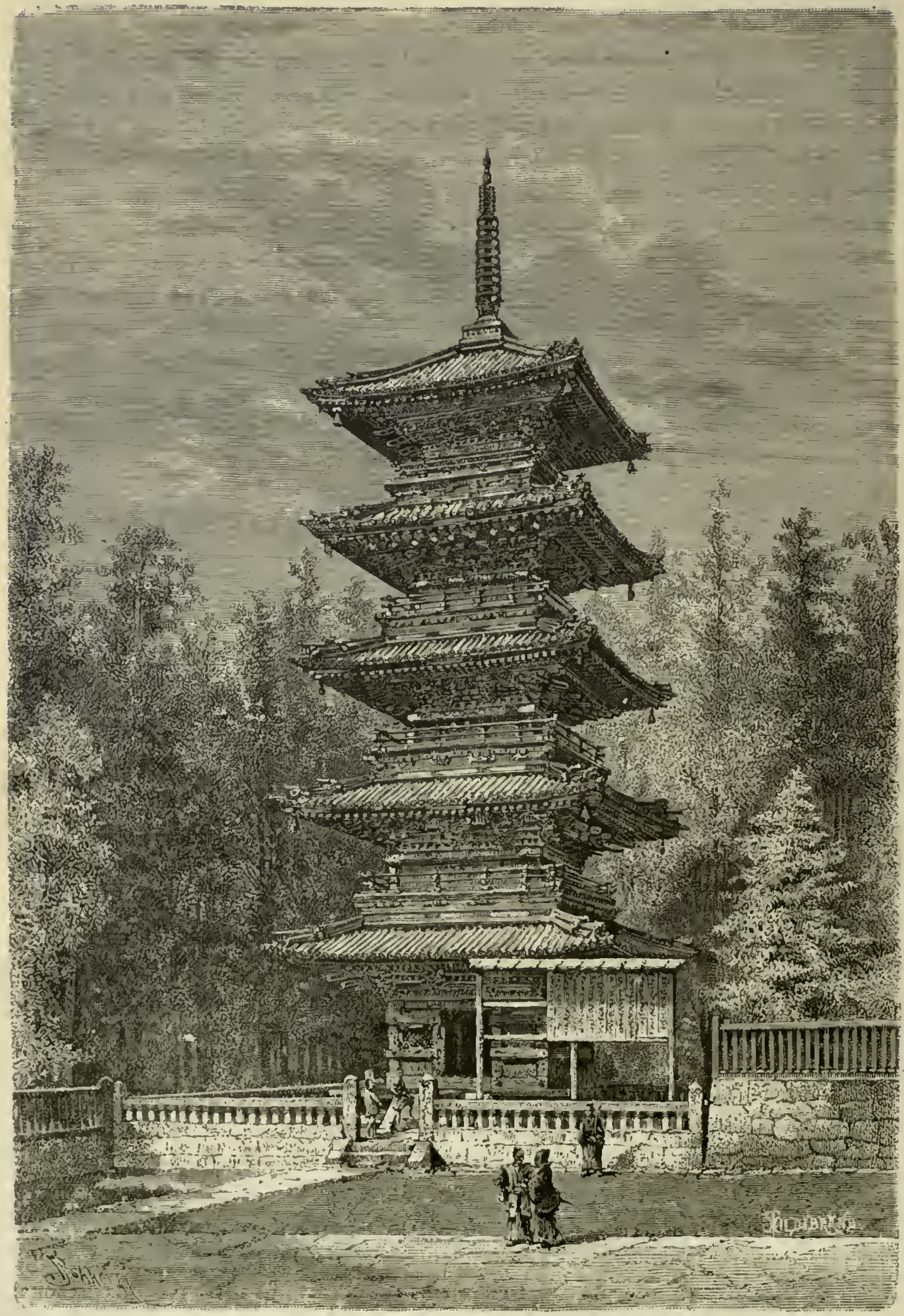
without addressing them as mortals, and honouring them with feasts and banquets? Such is the old ancestral cult, associated with that of the *Kami*, or genii, and of natural phenomena, which still prevails under the Chinese name of Sinto. The rites of this extremely simple worship, which asks of its followers nothing but purity of soul and thought, are usually performed in the midst of the grandest natural surroundings, where have been raised the *miya* or *yasiro*, shrines consecrated to the genii, and containing the crystal mirror, symbol at once of purity and of supernatural foreknowledge. In the ceremonial the heads of families have been

replaced by a caste of hereditary priests, who invoke the genii on behalf of the multitude, who bring the offerings, and in their honour celebrate the *matsuri*, or pantomimes and theatrical representations.

By one of those coincidences so frequent in history, the revolution of 1867, which introduced the new culture from the West, was accompanied by a reaction in the religious world, whereby the old Sintoist animism again became the official religion of the Empire. But the funeral ceremonies, which formerly played such a large part in this system, are gradually losing their original hieratic character. There was a time when human sacrifices were associated with the burial of the great—women, slaves, and horses following their masters to the grave. Even so recently as 1644, it was found necessary to forbid the retainers of the daimios to immolate themselves on the body of their feudal lords. As in China, these victims were replaced by clay images deposited in the graves or funeral urns. But the most romantic natural sites are still chosen as the last resting places of the dead. The superb mausoleums of Yeyas and one of his successors have been erected in the loveliest valley in Japan, surrounded by the glorious woodlands of Nikko.

But the most sacred shrines of the Sinto worship are the two temples of the Sun-Goddess and the Goddess of Food, which are situated near Furnichi, in the province of Ise, about 90 miles south-east of Kioto. They have for the Japanese the same importance as Mecca and Medina have for Mohammedans, and are yearly visited by thousands of pilgrims from every part of the Empire. In the capital no artisan considers it possible to gain a livelihood, unless he has invoked the protection of these goddesses by performing the pilgrimage at least once; and the peasantry are even more constant votaries at their shrines. Formerly it was a common thing for the little shop-boys of Yedo to abscond for a while from their employers, and wander along the public highway as far as Ise, subsisting on the alms which they begged from travellers; and having obtained the bundle of charms, consisting of the wood of which the temples are built, they returned rejoicing to their homes. The Ise pilgrims are all distinguished by large bundles of these charms wrapped in oiled paper, and carried suspended by a string from their necks. Popular stories are even current of dogs having performed the pilgrimage by themselves. These places derive their sanctity neither from antiquity nor from their magnificence, being in fact remarkably plain and even primitive in their architecture, but from the sacred metal mirrors forged in heaven for the Sun-Goddess. In every native house there is a small Sinto shrine containing paper tickets, inscribed with the names of various deities, one of whom is invariably the chief Goddess of Ise, and the paper box marked with this deity's name is supposed to contain some pieces of the wand used at the Ise festivals. At one of these festivals called *oni-osaye*, or "keeping down the demon," two fishermen used formerly to be brought in a cage to the temple, with flaming torches on their heads, and it was their part, as demons, to enter the shrine and carry off the image, while others of the confraternity repelled them with naked swords. Wounds were frequently inflicted, and it was in fact considered that the shedding of blood on these occasions was necessary to insure

Fig. 192.—Buddhist Temple at Nikko.



the prosperity of the fishing craft. A quieter festival, held in March, has recently been substituted for this sanguinary rite.

Buddhism and Christianity.

The ethics of Kosi (Confucius), introduced in the sixth century with all the accompanying Chinese ceremonial, exercised, as in China itself, a preponderating influence on the political and social institutions of the country, but it in no sense offers the character of a religion properly so called. The *Seïdo*, or "Halls of Holiness," are rather assembly rooms for the learned than true temples, and the great Seïdo of Suruga-daï at Tokio has already been converted into a library for European, Chinese, and Japanese works. Buddhism, however, has preserved its sway over a large section of the community, notwithstanding the suppression of some monasteries, the conversion of bells into copper coinage, and the forcible transformation of numerous temples into Sinto sanctuaries. Introduced apparently about the middle of the sixth century, the worship of Shaka (Buddha) had the advantage of being identified in the minds of its adherents with Western civilisation, for with it came the writings, arts, and sciences of India. It also attracted the people by its pompous ceremonial, by the dogmas of transmigration and final redemption, and by the infinite variety of its gods and saints, amongst whom it eagerly hastened to make room for the shades of the great national heroes. Since its establishment Japanese Buddhism, almost entirely cut off from all communication with the Buddhist world on the mainland, has become divided into numerous sects, some claiming to have preserved the old faith in its purity, while others have become modified by the sanction of new revelations. But all had long lost the knowledge of the language in which the sacred books had been written, and it is only quite recently that, at the repeated suggestion of Max Müller, *bodzes* educated in the West have at last discovered in the temples of Nip-pon some precious Sanskrit writings hitherto supposed to have perished. The type of some Hindu idols has also been preserved from the time of the early missionaries, neither sculptors nor workers in metal venturing to modify the traditional forms.

Of the sects by far the most popular is that which, under her thirty-three different images, worships Kannon, the Kwanyin of the Chinese, "Goddess of Mercy with her thousand helping hands." According to the census of 1875, the seven principal Buddhist sects possess between them no less than 88,000 temples, while, the Sintoists have over 120,000, many, however, of which are used in common by both religions, a simple bamboo screen separating the two altars. The "prayer mills," so universal in Tibet, are rarely found in the Japanese temples, although the devout are incessantly muttering the name of Buddha. They also write their prayers on scraps of paper, which they roll up in little pellets, to pelt the idols, and thus obtain their petitions through the efficacy of the divine contact. The inside of the statues is sometimes crammed with these papers, or else boxes are set going on which are inscribed the words "ten thousand prayers." The brooks and streams are also by some simple contrivances transformed to "flowing invocations."

The Shin-shiu, or "New Sect," founded by Shinran-shonin in the thirteenth century, probably ranks next in importance and influence. It differs in many

respects from all the others, rejecting all Buddhas and deities except Amida Buddha, to whom alone prayers and invocations are to be addressed. Hence the charge brought against it of being a pure Theism, although Amida Buddha is not regarded as a creator, nor as having existed in his present state from all eternity. He is neither the preserver of all things, nor omnipotent, nor the regulator of events in this world, nor a punisher of sin in the next. In fact, he has no true personality at all, so that his votaries seem to be rather Atheists than Deists, differing but little from the materialistic agnostics of Europe. Nevertheless their immense influence in every part of the Empire has recently been strikingly illustrated in connection with the restoration of one of the great temples in Kioto. Towards the fund raised for this purpose the province of Owari alone contributed no less than 500,000 *yen*, or about £100,000. Offerings of all sorts in coin and kind also poured in from Kaga, Mino, Yechizen and other provinces famous for their devotion to Buddhism. Women and young girls are even said to have cut off their hair and twisted it into cords to drag cedar trunks to the capital, where these trees were hewn into pillars for the new temple. Buddhist priests also went about the country selling shares in a new railway company which has been projected to connect the remote provinces with Kioto.

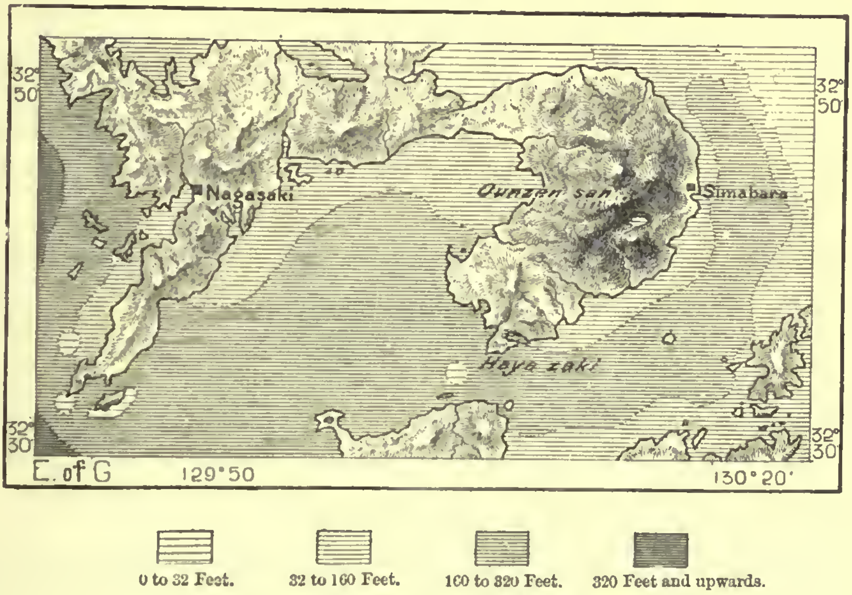
From all this it is evident that, contrary to the general opinion, a great deal of superstition and religious zeal still remain. On the other hand, there are many indications to show that the Japanese are not on the whole a very religious people, and that "at the present day religion is in lower repute than probably it has ever been in the country's history. Religious indifference is one of the prominent features of new Japan. Shortly after my arrival I was at a picnic held within temple-grounds near Tokio. The main hall of the temple was put at our disposal, and there our collation was spread, right in front of the altar. One Buddhist priest let his temple to one of my colleagues, by whom the altar was used as a sideboard. Another, finding the chanting of prayers not sufficiently remunerative, took some time ago to selling beer and taking photographs at the great image of Daibuts, near Kama-kura. Decaying shrines and broken gods are to be seen everywhere. Not only is there indifference, but there is a rapidly growing scepticism. Among the better educated classes this is widespread. The bare mention of Buddhism is enough to provoke a laugh from the student who has imbibed foreign science and philosophy. But the masses also are becoming affected by it. During a discourse on Infinite Vision, which a priest recently delivered at a temple in Shina-gava, one of the congregation stood up and spoke thus sceptically: "Truly, the more we reflect on these subjects, the more are we plunged into the vortex of perplexed thought. All that the priesthood affirms on the subject of heaven and hell is a mere fabrication, an assertion of which any plain man can easily perceive the truth. If you explain the visible, which the eye can see and the understanding grasp, well and good. But as to the invisible, who can believe?" *

Christianity, which formerly claimed so many adherents in the southern provinces, is now reduced to very narrow limits. Soon after the arrival of Francis

* "The Land of the Morning," p. 516.

Xavier, in 1549, the worship of *Yaso* (Jesus), at first regarded as a Buddhist sect, made rapid progress. The Jesuits founded a seminary at Funai, and within thirty years of the first conversions, the Christian communities, grouped round two hundred churches, numbered over 150,000 members. A native prince, zealous for the new faith, boasted of having burnt on his lands 3,000 monasteries, and dispatched an envoy to convey his homages to the "Great, Universal, and Most Holy Father of the whole World, the Lord Pope." But an unguarded reply of a Spanish pilot wrecked on the coast of Nip-pon caused the dictator, Taiko-sama, to reflect. To the question, "How has your sovereign been able to acquire so many lands?" the Spaniard had answered, "By arms and religion. Our priests prepare the way by converting the people to Christianity; then the task of subjecting

Fig. 193.—Nagasaki and Unzen-san.
Scale 1 : 800,000.



them to our authority is a trifling matter." Thereupon Taiko-sama issued a decree, in 1587, banishing the Jesuits, and although his threats were not carried out at the time, ten years afterwards some Franciscan friars, who had given themselves out as ambassadors, and who had been denounced by their rivals, were condemned to be crucified. Nevertheless, the new religion continued to be tolerated till the year 1614, when some repressive measures were taken, and its practice finally interdicted after the return of an envoy sent to Europe to collect information on the religions of the West. Condemned to renounce their faith, the Catholics of Kiu-siu revolted, in 1638, but they were defeated and mercilessly put to the sword. Thousands were on this occasion thrown into the sea and down the crater of Unzen near Nagasaki. In 1640 four Portuguese ambassadors from Macao were put to death with most of their suite, and thirteen sailors sent back with the warning, "While

the sun warms the earth, let no Christian dare to set foot in Nip-pon! Let all know! If the King of Spain in person, or the God of the Christians, the great Shaka himself, violate this decree, their heads shall fall!"

Nevertheless, a number of Catholics continued to practise their religion in some remote villages, and at the revolution of 1867 about 4,000 of them were exiled to the Goto Archipelago and other islands, for having refused to take part in the religious ceremonies in honour of the Mikado. Christianity is at present allowed to be openly preached in the treaty ports, and the government has even sanctioned the conversion of Buddhist temples into Protestant or Catholic chapels. The English and American missionaries, numbering over one hundred altogether, are the most zealous evangelisers, although the results of ten years' efforts are very slight. On the other hand, the Buddhist priests, mostly of the Manto sect, which rejects celibacy and mortification of the flesh, have gone to Europe in search of arguments to be afterwards used against the Christian missionaries. Most of the numerous recent sects, such as the "Poor Brethren," the "United," the "Discontented," the "Sea-weeds," have only indirectly felt European influences, and occupy themselves more with social reforms than with religious changes. The adventurers landing in their ports are not calculated to inspire the natives with much respect for the religion of the foreigners, for, as they say, "the tree should be known by its fruits."

The prevailing moral tone of foreign residents in Japan is admittedly low, even though it might be unjust to speak of it as absolutely immoral. Nor is this low tone the only obstacle to the progress of Christianity. "There are many respectable men altogether indifferent on religious matters, and many professing Christians, who, with an inconsistency almost incredible, take every opportunity of giving vent to the unreasonable *animus* which they feel towards their fellow-countrymen who have come to preach the Gospel to the Japanese. The sneers and invectives, however, of such critics are invariably in exact proportion to their ignorance of the actual work which missionaries are doing.

"The missionaries of the various Protestant denominations work together amicably, and the Japanese have no sectarian warfare to perplex them in their consideration of the new religion. The three Protestant Churches represented, viz. the American Presbyterian, the American Dutch Reformed, and the Scottish United Presbyterian, have united in the one Presbytery, and together maintain the Union Theological School, an Institution which, in 1880, had seventeen students preparing for the Christian Ministry." *

Topography of the Kuriles and Yeso.

The cold, foggy climate of the Kuriles and the northern division of Yeso have prevented the development of agriculture in those bleak regions. In 1875 there were only 453 settled residents in the Kuriles, besides those of the temporary fishing and hunting stations on the islands of Kunashir and Iturup. The more

* W. G. Dixon, *op. cit.*, p. 570.

northern islands of the group have in recent years been almost deserted, the whole population having been reduced in 1874 to seventy-two souls, confined to the three islands of Sumshu, Unekatan, and Sinskatan. Even the interior of Yeso is mostly uninhabited, while the so-called towns of *Soya*, on La Pérouse Strait, *Sibetz*, and *Nemoro*, facing Kunashir, are mere fishing hamlets. The population is concentrated chiefly in the towns of the south-west, where the temperature is milder, and where supplies of all sorts are more abundant than in the north.

Sapporo (*Satsporo*), capital of the island, lies in an open alluvial plain watered by the Isikari and its affluents. It is a recent town, built on the American model,

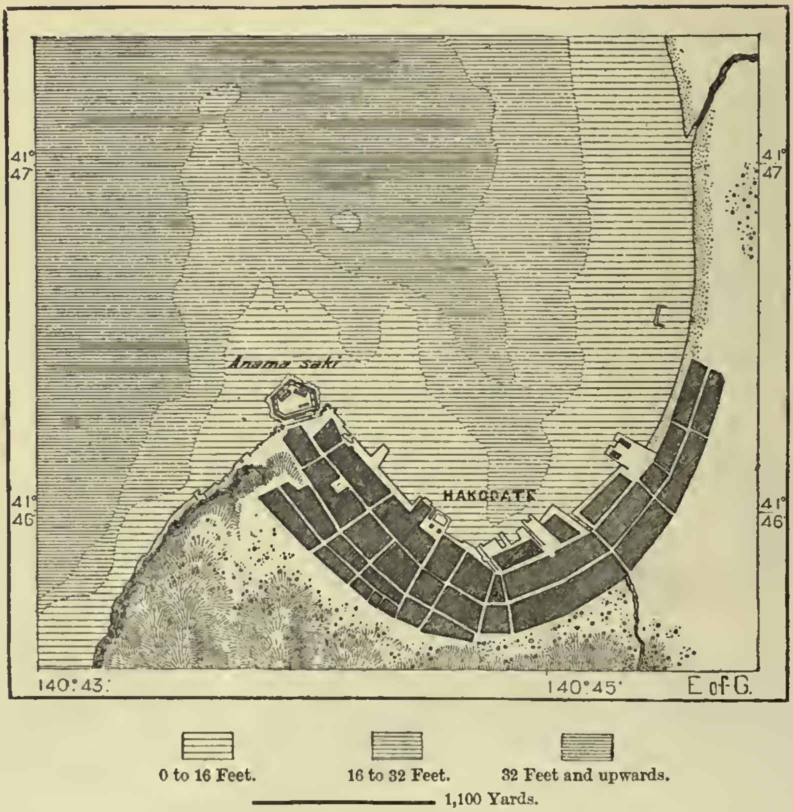
Fig. 194.—Hakodate Bay.
Scale 1 : 90,000.

and boasts even of its "Capitol." Here is a School of Agriculture, established by some professors from the United States, and the lands in the neighbourhood have been distributed amongst about 1,000 military colonists. A more important place is the fishing town of *Isikari*, at the mouth of the river, where as many as 1,200,000 salmon were taken in 1860. *Otarù* (Otarunaï), lying on the coast, west of Isikari, and connected by rail with the capital, also exports large quantities of fish even as far as China. Here about fifteen million pounds of salmon are yearly cured, and vast quantities of herrings are used in the manufacture of manures. On a creek farther

to the south-west lies the port of *Iwanaï*, where the chief export is coal from the neighbouring pits.

On the more thickly peopled south coast are the towns of *Saru*, also a centre of the coal industry; *Yubuts*, a much frequented fishing station, and *Mororan*, on the deep bay of Yedomo, where the bar has 26 feet at low water. Here travellers embark to cross Volcano Bay and visit the city of *Hakodate*, which stands on one of the safest and most spacious harbours in the world. Thrown open to foreign trade in 1854, this port, which in clear weather commands a view of the Hondo

Fig. 195.—Hakodate.
Scale 1 : 40,000.



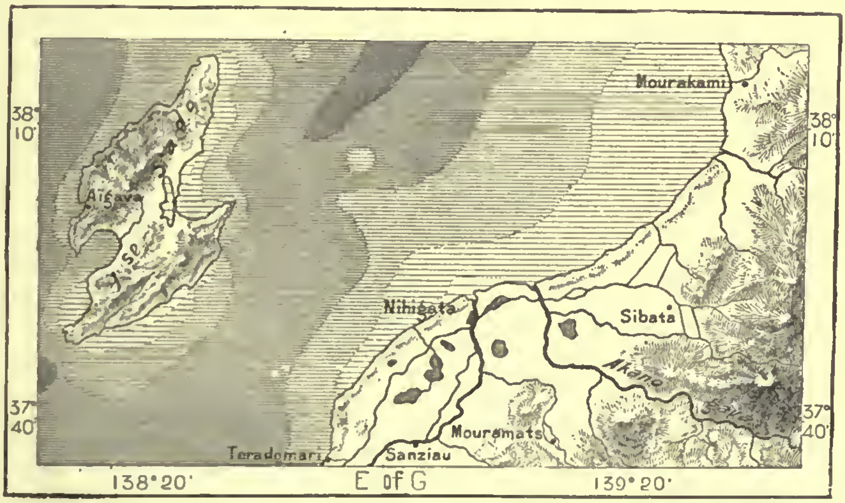
mountains, has made rapid progress since the middle of the century. The population has increased five-fold during that period, and about one hundred Europeans have settled in the town, which has become the chief station of the whalers frequenting the Sea of Okhotsk. A Japanese squadron visits the roadstead every year, but the foreign shipping is inconsiderable, the native steamers having almost monopolised the export business. One of the staples of this trade is the *kampu*, or "sea cabbage," an edible seaweed 20 to 40 feet long, which is dried on the strand and forwarded to Hondo and South China. Some fine country-houses have sprung up here and there on the slope of the hill, 1,150 feet high, which commands the approach to the roadstead and to the peninsula of Hakodate.

Yezasi, on the west coast of Yeso, is also a large town; but *Matsmai*, or *Fuku-yama*, the southernmost town in the island at the western entrance of Tsugar Strait, has lost much of the importance it possessed in the old feudal times, when it was the residence of a native prince. The anchorage is bad, especially during the southern winds, and it has been deprived of the commercial advantages now transferred by the treaties to Hakodate.

Topography of Nip-pon.

Lying beyond the rice zone, the northern extremity of Hondo is but thinly peopled, no numerous communities occurring till we reach the valley of the

Fig 196.—Nihi-gata and Sado Island.
Scale 1 : 1,400,000.



0 to 32 Feet. 32 to 160 Feet. 160 to 320 Feet. 320 to 640 Feet. 640 Feet and upwards.

15 Miles.

Kitakami River. *Aromori* (*Aomori*), on the south side of the large inlet opening towards Tsugar Strait, derives some importance from the movement of passengers who embark here for Hakodate. A larger place is *Hirosaki*, formerly capital of a vast principality. But no other large town is met till we reach *Kubata* or *Akita*, 70 miles farther south, near the mouth of the Mimono-gava, and *Morioka*, on the upper course of the Kitakami. The produce of the rich copper mines in this basin is forwarded on flat-bottomed boats to *Isinomaki*, at the mouth of the river in the island-studded bay of Sendai. The populous city of *Sendai*, which gives its name to this inlet, lies 9 miles from the coast, in the midst of extensive rice grounds.

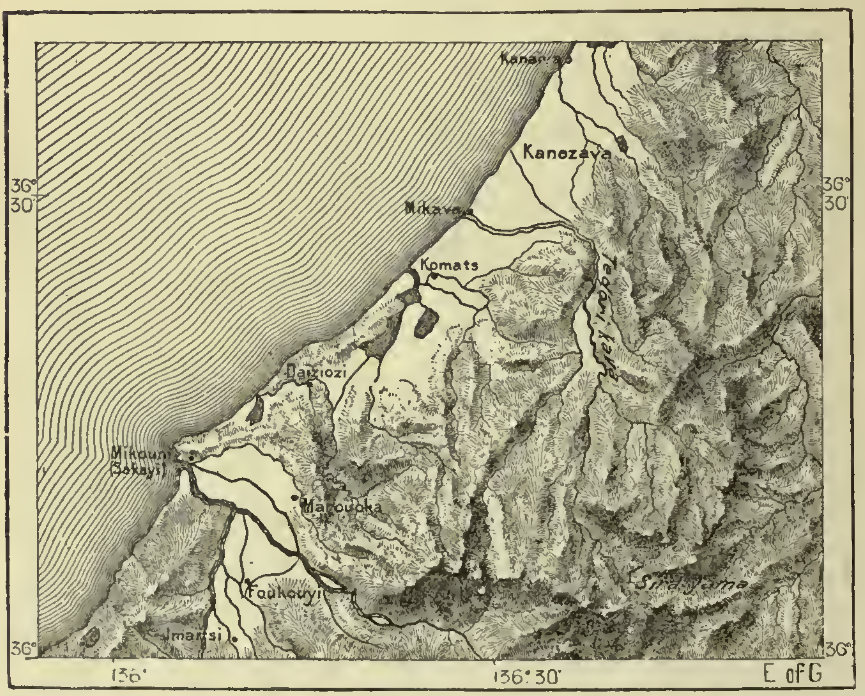
Sendai, which does a large trade in foreign wares, is noted for its production of fancy articles made from a kind of fossil wood collected in the district. Amongst

the curiosities of the place are the presents given by the Pope to the Mission which was sent to Rome in the year 1615 by Prince Date Masamune. Sendai was formerly the castle town of the feudal prince Date Mutsu no Kami, whose stronghold was partly ruined during the revolutionary war of 1868. It is now used as a military barrack, and is approached by a handsome bridge of modern structure.

South of Sendai follow the towns of *Nihonmats*, *Fuku-sima*, and others in the valley of the Abukma, where we enter the region of sericulture. But on the west slope in the winding valley of the Mogami-gava are found the largest towns, such as *Yonezava*, *Yama-gata*, *Tsurugaoka* (the ancient *Sionaï*), *Sakata*. Here is also

Fig. 197.—Kanezava and the White Mountain.

Scale 1 : 900,000.



18 Miles

Vakamats, capital of a *ken*, west of Lake Inavasiro and the Higasi-yama hot springs. The neighbouring forests contain many trees yielding the varnish used in the preparation of lacquer, and not far off is one of the chief porcelain works in Japan. The torrent or *Kava* watering this district forms a junction with the Sinano, or river of the "Thousand Bears," in the plains of *Nihi-gata* (*Niigata*), where the routes converging from both valleys join the main northern highway of Hokrokudo. Nihi-gata derives great importance from its position at the junction of so many roads, on the banks of a river navigable for some distance by steamers. Intersected by canals and encircled by avenues, the city is one of the cleanest in Japan. But although thrown open to foreign traffic, its export trade is inconsiderable, owing

TYPES AND COSTUMES OF CITIZENS OF TOKIO.

Nirazaki
KOFOU (YAMANASI-KEN)
Takasima
Vadu
Kiotokouyin san
Saroubasi
Ouyenov
Kouroda
Naka yama
Itsikava
Kadzikava
Fouzi-kava
Kanza
L. Benten
Hakovara
Arizava
Fnats
Nisino oumi
L. Siôzin
L. Motos
Komi take
Yamanaka
L. Yamanaka
Simoyama
Little Fouzi
Soubaziri
Asigara yama
Fouzi san
Hoyei san
Mitono
Gotenba
Ohosava yama
Sino vada yama
Abo yama
Foukayama
Iou yama
Kamaga tak
Fouzi
Ohokoubo
Mourayama
Asitaka yama
L. Asina oumi
Iyanouma
Ohomia
Yokoura yama
Futago yama
Sasa yama
Hakone
Sisivara
Vasinos yama
Fouzi-Kava
Yesivara
L. Fouzi nouma
Misima
Higane yama
Kanbara
Hara
Noumadz
Atami
Yuhi
do
TAGO OURA
YENO OURA
Nakadz
Tokai
Yeziri
of
Main route
Yeuasi
Yeta
Kano-Gava
Ousami
Aziro
Vada
30'
35°
139° E. of Gr.
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NEW YORK

ITS BAY.

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to the bar at the mouth of the river, and to the prevalence of fierce gales in winter. Hence the rice, silks, teas, lacquer, ginseng, indigo, and other products of the rich Nihi-gata plains have to be mostly forwarded by bad mountain roads across Hondó to Tokio. *Teradomari*, lying 30 miles farther to the south-west, had threatened to supersede Nihi-gata altogether by depriving it of the Sinano-gava, which might be diverted by canalisation directly to the coast at Teradomari. But the vast cutting, 300 feet deep at one point, undertaken for this purpose, has never been completed, and Nihi-gata, such as it is, still continues to be the best seaport on the coast. It is partly sheltered by the neighbouring island of Sado, and several native and foreign engineers have been invited by the Government to report on the best means of improving its approaches. *Murakami, Kasirazaki, Imamatsi*, and the other towns on this seaboard all suffer from the same want of convenient harbours or sheltered roadsteads. In the neighbourhood of *Aïgava*, capital of Sado, are some old gold and silver mines, which have been worked for ages. The profit from these mines under their present management was estimated in 1881 at about £17,000. But for many years previously the value of the precious metals obtained appears to have been more than absorbed by the working expenses. Limestone is the prevailing formation in the island of Sado, which is very hilly, consisting of two groups of mountains separated by an intervening cultivated plain.

On the large bay, protected westwards by the long promontory of Noto, are situated the trading towns of *Uvots, Sin-minato, To-yama, Takaoka*, while towards the south-west lies the manufacturing city of *Kanezara* (*Isikava-ken*), famous for its chased bronzes, painted porcelains, and textile fabrics. In the same district are several other industrial centres, such as *Komats* and *Mikava*, both on the coast. Farther south are the sea-ports of *Takamats* and *Sakayi*, whence are forwarded the products of the surrounding towns of *Ohono, Maruoka*, and *Fukuyi*, lying at the foot of the lofty Siro-yamo, or "White Mountain."

South of the rich Sendai plains there are no large towns on the rocky east coast till we come to the decayed city of *Mito*, at the mouth of the Naka-gava. But the population becomes more dense in the fertile plain watered by the Tone-gava and its tributaries to the north-west. Here *Takasaki* and *Mayebasi* are noted centres of the silk industry, and at *Tomioka* the Government has established a model silk spinning factory, which has become the most important in the Empire. Near the mouth of the Tone-gava is the large town of *Diosi* (Chosi), with its port of Fnabasi at the northern extremity of Tokio Bay. Diosi, which consists of a group of villages extending over a space of about two miles, is chiefly occupied in the fishing trade. Large quantities of the *iwashi*, a kind of pilchard, but of smaller size, are captured all along the coast and brought to Diosi, where they are boiled down in huge cauldrons. The oil thus obtained is used for lighting purposes, and the residue, after being dried in the sun, is sent inland for manure. The smells arising from this process render Diosi and the neighbouring villages almost uninhabitable by strangers.

Tokio (*Tokiyo, Tokeï*), the present capital and largest city in Japan, is the old *Yedo* (*Yeddo*), or "Gate of the Bay." Its new name, synonymous with the Chinese

Tongking, means "Eastern Capital," and dates only from the year 1869, when it became the residence of the Mikado. Nothing existed in this region except fishing and rural villages until the close of the sixteenth century, when Toku-gava Yeyas, founder of the last Shogun dynasty, built his stronghold here. Under one of his successors all the daimios were ordered to reside in Yedo for half the year, and to leave their families and most of their household in the place, as hostages for their good behaviour. A multitude of nobles, soldiers, employés, and retainers of all sorts thus came to be grouped round the hill on which stood the palace of the Shogun. Trade followed in their wake, and at the height of its prosperity, about the middle of the present century, Yedo certainly contained over a million inhabitants. Including the 800,000 armed retainers and attendants of the daimios, some authorities have estimated their numbers as high as 2,000,000 and even 2,500,000. But the civil wars, the departure of many nobles with their households, and the commercial ruin caused by the fires and massacres, reduced a large part of Tokio to a wilderness. But with the return of peace it has gradually recovered, and is now perhaps nearly as populous as under the Shogun *régime*. Its commercial and industrial pre-eminence is at the same time insured by its position as capital of the Empire.

Covering about as much space as Paris within the fortifications, Tokio occupies the north-west extremity of the bay at the mouth of the Sumida-gava, which is here connected with the Tone-gava by the Yedo-gava branch of that river. It is encircled south, west, and north, by low wooded hills, while a central eminence, surrounded by grey walls and a moat 3½ miles in circuit, is crowned by the On-siro, or "Noble Castle," formerly residence of the Shoguns, now of the Mikado. The old dwellings of the daimios have been mostly converted into government offices and schools, and beyond this middle zone, also enclosed by walls and canals, stretches the city properly so called. The busiest commercial quarter lies eastwards, between the Siro and the mouth of the "Kava," where stands the "Bridge of the Rising Sun" (*Nip-pon Basi*), regarded as the central point of all the imperial highways. Here the Ginza boulevard has already begun to assume the aspect of a European city. Within a small space, handsome brick houses stretch in a continuous line, broken elsewhere by gardens, tea and mulberry plantations, and clusters of cryptomeriæ. But most of the 250,000 houses are still constructed in the old native style. During the day these little houses, with their black tiled roofs and white ledges, are open to the street, showing the *kamidana*, or sacred images and ancestral tablets, disposed on their stands of honour. In a country like Japan, where earthquakes are so frequent, these frail bamboo and cardboard structures are much safer than stone buildings, but are also far more liable to the risk of fire. They are supposed to have an average existence of about six years, and "fire," says a local proverb, "is the blossom of Yedo." At the first signal of alarm the more costly objects are carried off to the nearest fire-proof warehouses erected against such contingencies. Some 10,000 houses were consumed by a conflagration in 1879. But a far more terrible fire broke out in the year 1657, when as many as 107,000 persons are said to have perished in the flames. Over 500 palaces of the daimios, 770 residences of other nobles and officials, 350 temples, and 1,200 streets of common houses were

destroyed on this occasion. In 1668 thero was another great fire, which consumed nearly the whole of the city. Tokio has also suffered greatly from earthquakes, epidemics, typhoons, and floodings. The earthquake of 1703 is said to have destroyed over 37,000 souls, and no less than 190,000, chiefly of the poorer classes, were swept away by the fearful epidemic of 1773. On the 11th of November, 1855,

Fig. 198.—Monster Bell in the Siba Quarter, Tokio.

the last great earthquake took place, and on this occasion over 14,000 dwelling-houses, besides 16,000 fire-proof "Godowns," were levelled to the ground. The loss of life was estimated at over 100,000, but there is no trustworthy authority for these numbers, nor, in fact, for any of the statistics of lives lost during similar disasters in former times.

Tokio may be described as an aggregate of about one hundred small towns and

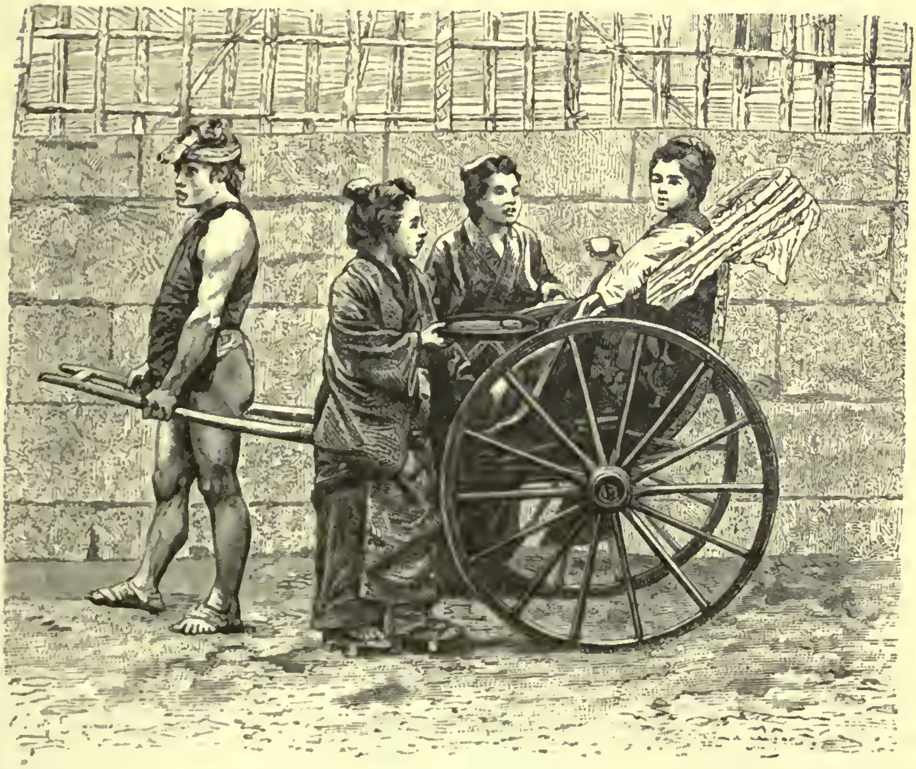
villages, which, by expanding in every direction, have gradually become united in one city, while leaving here and there several open spaces occupied by gardens, groves, and fields. There are no remarkable architectural monuments, although a really imposing effect is produced by the cyclopean blocks of the castle walls, relieved at intervals by kiosk-like towers, and at some points rising fully a hundred feet above the broad and deep outer ditches. The *yasiki*, or palaces of the ancient daimios, are low buildings walled round and adorned with carved wooden porches. But the most curious and ornate structures are the Buddhist temples, of which there are upwards of a thousand scattered over the city, and especially in the Asakusa quarter, where is the temple of the Golden Dragon dedicated to the Goddess Kwannon. This is at once the most frequented and the most venerable for its historic memories, occupying as it does the islet where the first monuments of Yedo rose above the surrounding swamps and waters. The neighbouring hills, such as Siba in the south, and Uyeno in the north, tower above the vast sea of houses and sacred edifices, and are themselves crowned with temples and tombs notable for their rich wood carvings, elegant decorations, noble *torii*, or porches, and enormous bells. Of the two museums recently erected on these hills, one contains a natural history collection, the other Japanese artistic works, besides an ethnographic exhibition of the greatest value for the study of the aborigines of Yeso and the Kurile Islands. The surrounding parks, planted towards the end of the sixteenth century, are amongst the finest in Japan, which is so rich in plantations of magnificent timber. The cemeteries, one of which near Siba contains the tombs and effigies of the forty-seven *ronin*, are also laid out as public grounds, shaded with trees, and made bright and cheerful with flowering shrubs. Tokio has now also its botanic garden, besides numerous nurseries and horticultural establishments, but no public squares or free open spaces for popular gatherings. The people having been formerly excluded from political life, the Japanese cities contained no such meeting-places, the forum being useless in the absence of free citizens. But the recent changes will necessarily require a corresponding modification in the plan of the towns.

The above-mentioned ronin are the subject of a famous story highly characteristic of the chivalrous period of Japanese histroy. Early in the year 1701 a young noble named Asano Takumi no Kami having been appointed to entertain the Mikado's envoy to the Shogun, happened to give offence to Kira Kodzuke no Suke, an old gentleman learned in court ceremonies, who was his instructor in the proper etiquette to be observed on this occasion. For some time he endured the taunts of Kodzuke no Suke, but was at last so provoked that he could no longer control his indignation, and attempted to kill his insulter with a dagger. This occurred in the palace of the Shogun, where to draw a sword in anger was a capital offence. Hence, although defeated in his attempt by the bystanders, Takumi no Kami received orders to dispatch himself according to the usual *harakiri* fashion. His castle of Ako was also confiscated, and his retainers were turned adrift into the world, thus becoming *ronin*, or "masterless men." Amongst them was Ò-ishi Kura no Suke, one of Takumi's chief counsellors, who formed a league with others

to avenge the death of their chief. After a short time their number having been reduced to forty-seven, all of whom could be thoroughly depended upon, the execution of their design was fixed for January 30th, 1703, when they attacked Kodzuke no Suke's residence, dragged him from his hiding-place, and cut off his head, which they triumphantly deposited on Takumi's grave in the cemetery at Tokio. The Kubi-arai-i-do, or "Well where the head was washed," still exists near the path leading to the tombs of the ronin themselves.

Although few European traders have settled in Tokio, it is nevertheless a very lively place, all the main streets being animated by over 25,000 *jinriksia* (*kuruma*), vehicles drawn by hand moving about incessantly between the central parts and the

Fig. 199.—Jinriksia, Japanese Hand-cart.



shore. The numerous canals intersecting the lower town in every direction are also usually crowded with craft loading and unloading at all the quays and wharves. The Sumida-gava, which is crossed by five bridges connecting Tokio with the great suburb of Hondjo, is sometimes completely covered by barges and junks of every form, besides gondolas and pleasure-boats impelled by wind or tide. But the bay, in which forts have been erected on artificial islands, is too shallow for large vessels in the vicinity of Tokio. Hence the real port lies farther south, at *Sina-gava*, while all the ocean steamers stop at *Yokohama*, where the new railway stations are as crowded as those of any European city. Here is also the Tski-dzi, or European "Concession," occupied by several foreign merchants. The railway, which, like

Yokohama itself, has been partly constructed on reclaimed land, runs from this place round the bay to Tokio, a distance altogether of 18 miles.

Tokio is the chief industrial centre of Japan, although its wares are on the whole inferior in quality to those of Kioto, the old imperial capital. It manufactures silks and other woven goods, porcelains, lacquer-ware, enamels, machinery, and is the main source of supply for all towns lying east of Lake Biva. Tokio is also the great literary centre of the Empire. In 1879 its University had 40 native and 12 foreign professors, with 150 scholars, besides over 20 young students supported by its funds in Europe and America. The handsome College of Engineers, erected by a French architect, is almost unrivalled for the richness of its collections and the facilities of every sort offered to students. Besides 145,000 volumes and other treasures, the chief library contains the oldest known Sanskrit manuscript, dating from the year 609 of the new era, and another library has already accumulated 20,000 volumes in European languages. Amongst the chief learned institutions is a Geographical Society, which publishes a journal of its proceedings.

Before it became the terminus of the steam navigation with Europe, *Yokohama* was a mere fishing hamlet on the south side of Yedo Bay. Choice had at first been made of *Kane-gava*, lying 6 miles to the north, where the great Tokaido highway turns inland from the coast. But the neighbourhood of this highway, where the daimios and their suites were constantly passing, seemed dangerous for the security of the foreign settlement, while its shallow roadstead prevented the approach of large vessels. At Yokohama, on the contrary, the water is so deep that the largest vessels are able to ship and discharge the cargoes close in shore. The new city already covers a considerable area, much of which was formerly occupied by rice grounds and gardens, forming part of the flat land which extends along the shores of the bay, and which is backed by a semicircle of low wooded heights. A large export trade has been developed in teas, silks, rice, camphor, lacquer-ware, and other local produce, exchanged chiefly for European manufactured goods. Yokoska Bay, lying south of Yokohama, has become a Japanese naval station and arsenal. A large military encampment has also been formed near the fortified city of *Sakura*, between the Tone-gava and Sumida-gava Deltas, towards the neck of the peninsula of Ava-kidzusa. The barracks occupy the site of an ancient castle, former residence of the princely Hotta family, famous in the annals of the Tokugava Shoguns. Close by is the old execution ground, where Sogoro with his wife and three sons suffered death in the year 1645.

Some 14 miles south-west of Yokohama, near the east side of Sagami Bay, are situated the ruins of *Kama-kura*, capital of the Empire from the twelfth to the fifteenth century. According to the local tradition, it occupies the site of an old lake, but was destroyed during a civil war in 1333. Kama-kura never recovered from this blow, but its former splendour is still attested by the remains of over one hundred temples, many palaces and tombs, one of which is dedicated to the memory of 8,300 legendary heroes, all of whom immolated themselves together. Near Kamakura stands the famous Daibuts, or "Great Buddha," a colossal bronze statue 40 feet high, remarkable for its calm and majestic expression, and containing in the

VIEW OF ODOVARA, TAKEN FROM TOKAI-DO.

interior a small Buddhist temple. The hair of the image is supposed to be treated in such a way as to represent the snails traditionally said to have crawled up to protect his bare head from the rays of the sun. Near Kama-kura is the holy island of Yeno-sima, which is also one of the most frequented places of pilgrimage in Japan. It is connected at low water by a tongue of sand with the mainland,

Fig. 200.—Simoda Bay.

Scale 1 : 45,000.

whence a magnificent prospect is commanded of the bay, with its wooded shores and the snowy crest of Fuzi-san in the distance.

The ports of *Odovara* and *Numadz*, on the Tokaï-do highway east and west of the peninsula of Idzu, have a considerable coasting trade as the outlets for the produce of the fertile district of Fuzi-san. *Simoda*, at the extremity of the peninsula, was nearly destroyed by the terrific submarine earthquake of 1854, and since then most of its trade has been transferred to Yokohama. *Kofu*, now *Yamanasi-ken*, lying in

a rich plain north of Fuzi, is one of the great centres of the silk industry, and possesses a spinning factory modelled on those of France. Beyond it follow the towns of *Sidzuoka*, *Hamamatz*, and *Toyobasi* (*Yosida*), all lying near the shore of Tohotomi-nada Bay. Hamamatz was formerly the castle-town of a powerful feudal chief. In the neighbourhood are two famous Sinto temples, noted for their magnificent internal and external decorations. But since the downfall of the Toku-gava family, by whom they were endowed, their revenues have been secularised, and these splendid buildings allowed to go to ruin. Another temple in the same district contains a much revered image, the female Buddha, Kwan-non, which is traditionally said to have been washed up from the sea in the year 806 A.D. But since the disestablishment of Buddhism, this temple also has lost much of its former splendour.

Nagoya, now *Aïtsi-ken*, founded by Ota Nobunaga, laid out with the regularity of a chessboard, and situated in a rich, well-watered plain on the bay of Ovari, is the fourth city in Japan for population, and is specially distinguished by the industry and enterprise of its inhabitants. They are engaged in the manufacture of woollen and silken goods, enamels and porcelain, and a school of medicine has recently been founded here. *Kuana* (*Kavana*) and *Atsuda*, the latter much frequented on account of its famous Sinto sanctuary, serve as sea-ports for the capital of the ken, as well as for *Yonagi*, *Kasamats*, *Gifu* (*Imaïdzmi*), *Ohogaki*, and the other cities of the plain. The maritime town of *Tsu* (*Ano-tsu*), on the west side of the same bay of Ovari, is also much frequented by junks, and its blue Ovari porcelain, so named from the province whence it is exported, is in most general use throughout the Empire. Farther on is the important city of *Yamada*, in the peninsula encircling the south side of Ovari Bay in the province of Ise. Near it are the most renowned temples of Sintoism, the Ge-ku and Nai-ku, yearly visited by multitudes of pilgrims. Traditionally 3,000 years old, these temples date at any rate from the beginning of the vulgar era, although the present edifices are no more than exact reproductions of the original buildings.

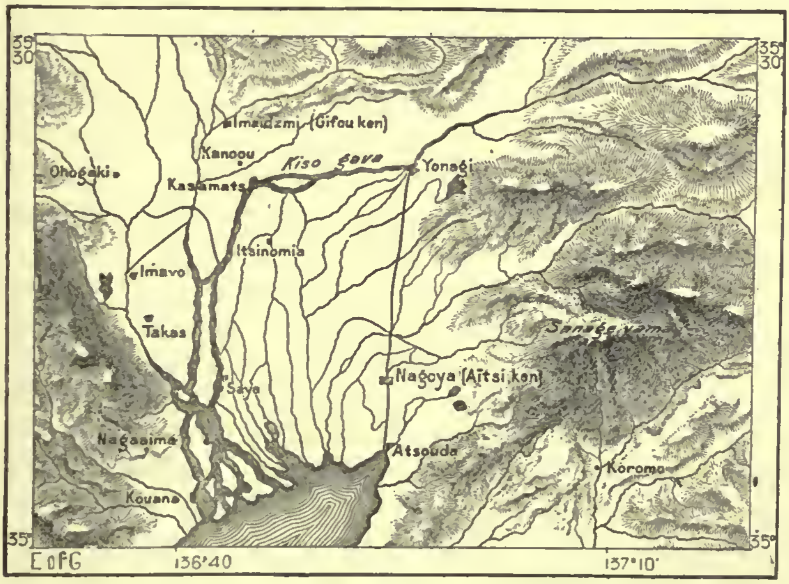
They are pulled down every twenty years, reconstructed with timber of the same species, and thatched with straw. Nothing is ever changed in the arrangement or character of the fittings; none of the Buddhistic innovations so prevalent in other temples have yet desecrated these revered monuments of the Sinto worship. Scarcely a Japanese house but has amongst its sacred relics a scrap of paper bearing inscriptions as mementos of the temples of Ise, and some objects in consecrated wood from the same locality.

The eastern entrance of the Inland Sea could not fail to become the site of a large centre of population. *Vaka-yama*, lying at the mouth of the Yosino-gava, north of the strait to which the Dutch have given the name of Linschoten, is accordingly an important trading place, and is moreover famous for the beauty of the surrounding scenery, the fertility of its plains, and the abundance of its fruits. In the same valley lies the monastic city of *Koya-san*, containing no less than 370 Buddhist temples and monasteries, formerly sanctuaries and places of refuge, where criminals and the suspected from all the surrounding lands found shelter. The carved

woods, paintings, and lacquer-ware of Koya-san date from the flourishing epoch of Japanese art, and such is the magnificence of the sacred groves planted round the temples, that one of the most majestic species of conifers in Japan has received the name of Koya.

A stream in the vicinity of Koya-san is crossed by a remarkable bridge, the planks in the floor of which number thirty-seven, and are marked with the names of the thirty-seven Buddhas of the Kongo-kaï. It is popularly supposed that no one who is unacceptable to Kobo Daishi, the patron of the spot, can pass over this bridge. When Hideyoshi made a pilgrimage to the place, after having risen to supreme power, he is said to have gone stealthily by night as far as the bridge, which he crossed, and

Fig. 201.—Naggya and Delta of the Kiso-gava.
Scale 1 : 860,000.



Canal
12 Miles.

then turned back again. He thus satisfied himself that the slaughter he had been compelled to make of his enemies, in order to obtain the protectorate and restore peace to the nation, was approved by Kobo Daishi, and that he might now safely venture to pay his formal visit in full state, accompanied by all the nobles of the Empire, without fear of being put to shame in their presence.

The basin of the Yodo-gava, which comprises Lake Biva, fringed with its "eighteen hundred villages," and where are situated the cities of Kioto, Nara, and Ohosaka, is pre-eminently the historic land of Japan. On the very shores of the lake itself stands the populous city of *Hikone*, the ancient residence of the daimio who was entitled to the regency during the minority of the Shogun. East of this place, which became famous during the intestine troubles towards the end of

the sixteenth century, is situated the station of *Sekigahara,* where in the year 1,600 Yeyas gained the decisive victory which led to the rise of the Shogunal dynasty of Toku-gava, and to the destruction of the faction allied to the Christians.

Ohotz (*Odzu*) and *Siga-ken,* lying at the outlet of the lake, jointly form a city, the possession of which was also frequently disputed by the rival political parties. On the heights of the Hiyei-san, overlooking it on the north, stand some famous Sinto sanctuaries and still more celebrated Buddhist temples, that especially of *Miyidera,* whose religious inmates took part in the struggle against Ota Nobunaga, dictator of the Empire and protector of the Jesuit missionary Francis Xavier. Ohotz, with its straggling suburb of *Zeze,* is now a commercial city, and may be regarded as an advanced quarter of Kioto, with which it communicates by a branch of the recently opened railway. By means of its steamers it has also acquired the monopoly of the local trade of Lake Biva, from whose waters sailing vessels have already nearly disappeared. A speciality of the industry of Ohotz is the manufacture of abacuses (*soroban*), or calculating machines.

The city of *Kioto,* that is to say, "Capital," called also *Miako,* or the "Residence," *Saïkio,* or the "Western Capital," and *Heianzio,* or "Castle of Peace and Tranquillity," has lost its rank amongst Japanese cities, and is now merely one of the three imperial, and the third only in the number of its inhabitants. After having been the seat of Empire for nearly eleven hundred years, it was supplanted by its eastern rival, Yedo, in 1868, when the sweeping revolution took place, which changed at once the government, administration, and national customs. Since then the population has diminished by more than one-half, and whole quarters have remained almost uninhabited. Nevertheless, Kioto, with its historic associations, still remains the city of beauty, elegance, and refinement. It also excels the new capital, if not in industrial activity, at least in the artistic taste of its products. Here are found the most skilled Japanese artisans in the manufacture of silks, brocades, embroidered fabrics of every kind, enamels, porcelains, ornamental bronzes, and other metal wares.

The ancient palace of the Mikados at Kioto covers a space of about twenty-six acres with its enclosures, and is surrounded by a roofed wall of earth and plaster with six gates. The inner court is approached by a flight of eighteen steps, corresponding in number to the original series of grades into which the Mikado's officials were divided. Outside the court is a building called Kashiko-dokoro, where was kept the copy of the sacred mirror given to the Mikado's ancestor by the Sun-Goddess, the original of which is supposed to be still preserved in her temple at Ise. When the palace was destroyed by fire in 960 the mirror flew out of the shrine in which it was then deposited and alighted on a neighbouring cherry-tree, where it was found by one of the Naï-shi, or female attendants of the Mikado. Henceforth the Naï-shi always had charge of the sacred emblem. Since the beginning of the seventeenth century the palace has been six times destroyed by fire, the last occasion having been in 1854. In the following year it was restored exactly in its previous size and style, but very nearly experienced the same fate again in 1864,

when Prince Cho-shin attempted to seize the Mikado. On this occasion Kioto itself fell a prey to the flames, and nearly one-half of it was reduced to ashes. Since then large spaces formerly covered by houses have been converted into market gardens, and the 90,000 residences mentioned by Francis Xavier in one of his letters have now been reduced to about half that number.

The suburb of *Avata*, lying east of the city, has for centuries been inhabited by a community of far-famed potters, originally from Korea. They work in their homes, where they prepare and mould their paste, decorating and baking it themselves. Their products are thus genuine works of art stamped with the originality and perfect workmanship of each individual artisan. Few towns in Nip-pon can be compared with Kioto for the regularity and order of its streets, all of which intersect each other at right angles, like those of so many American cities. The limpid waters of the Kamo-gava sweep round its east side, here separating it from some irregularly built outlying quarters. It is crossed by several bridges, which are much crowded by traffic, especially in summer. The north-east angle of Kioto is occupied by the Kinri, or old palace of the Mikados, with its now neglected gardens, while the heart of the city is commanded from the west by the Niziö, a former stronghold of the Shoguns, the true masters of the land, and now the residence of the provincial governor. Some of the temples are marvels of architecture, noted especially for the carved entablatures of their porticos, and the neighbouring cemeteries are the finest in Japan. According to the official returns, there are in Kioto no less than nine hundred and forty-five buildings of all sorts erected to the worship of Buddha, some of which date from the ninth and tenth centuries. "To the westward stands the great temple of Kennin-ji, on a height, and lower down towards the south another named Hongan-ji, both now in use for the exhibition buildings. Tier upon tier, and in close proximity along the sides of the hills, are temples of various sizes and celebrity, from the one containing the colossal image of *Daï Butz*, or 'Great Buddha,' to the smallest wayside shrine." *

The Daï Butz here referred to is preserved in the temple of Todaï-ji, and is said to be 53 feet high, consequently 7 feet higher than the Kama-kura statue. It is in a sitting posture, with the legs crossed; the right hand uplifted with the palm outwards, the left hand resting on the knee. The body and all the ancient parts of the lotus flowers on which it is seated are apparently formed of bronze plates soldered together. But the head looks like a single piece, although the temple is so obscure and the height so great that it would be difficult to distinguish seams if there were any. A peculiar method of construction is said to have been adopted, namely, of gradually building up the walls of the mould as the lower part of the casting cooled, instead of constructing the whole mould first, and then making the casting in a single piece. This process would explain the appearance of seams. On a hill near the temple stands a tower containing the huge bell cast in the year 732 A.D. This bell is 13 feet by 6, with 9 feet extreme diameter and 8 inches extreme thickness at the edge, and about 36 tons of copper with one ton of tin were used in the casting. (*Satow.*)

* S. Mossman, "Japan," p. 23.

The vast and fertile plain of Kioto, which amongst other produce yields the best tea in the kingdom, contains a number of other towns, which depend for their trade and industries on the capital. Thus *Fusimi*, which might be regarded as a suburb of Kioto, is its chief port on the Udzi-gava, now regularly navigated by steamers. Another outlet of its trade is the port of *Yodo*, lying lower down at the confluence of the Kitzu, the Udzi, and the Kamo, whose joint streams form the Yodo-gava, or "Sluggish River." The Kitzu, which here unites with the emissary from Lake Biva, flows by Nara, one of the oldest cities in Japan, and amongst the earliest imperial residences. Here are some magnificent sacred groves, and especially a park, in-

Fig. 202.—Lake Biva.

Scale 1 : 320,000.

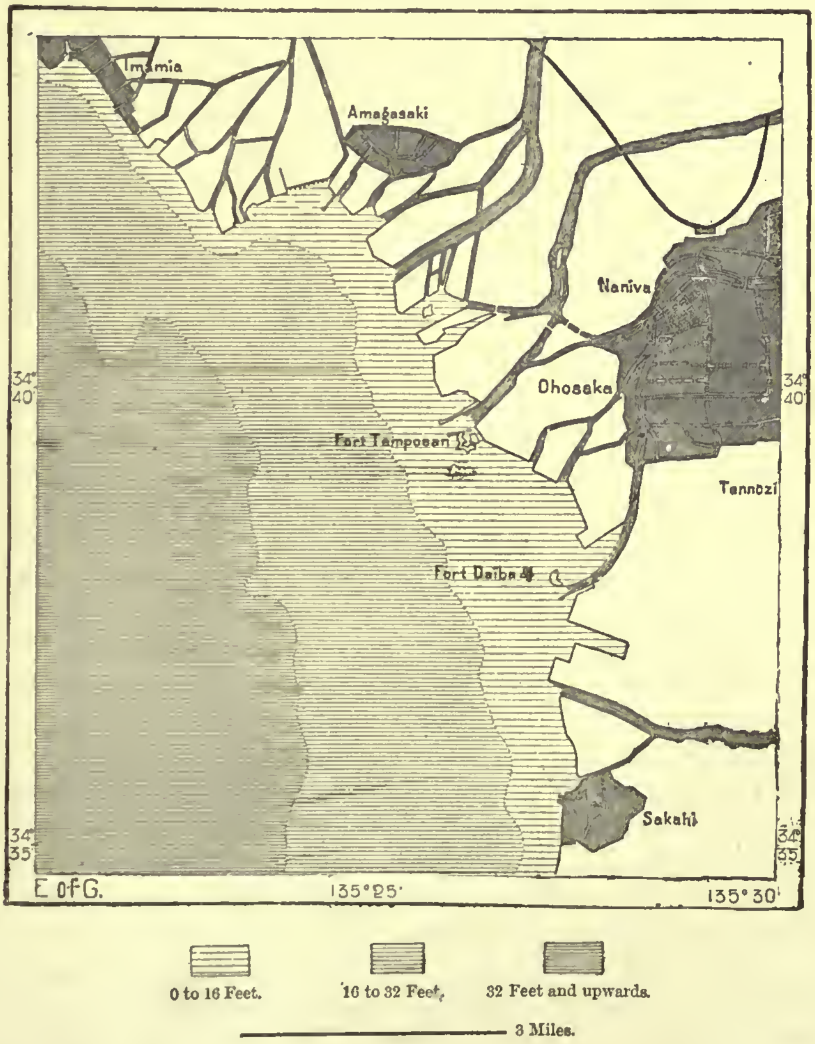
6 Miles.

habited for a thousand years by herds of tame deer, whose antlers are worked into all kinds of little fancy objects, which are regarded as sacred. Here also is the sumptuous temple containing the Daï Butz, a bronze statue over 50 feet high, and weighing 450 tons. It is one of the largest and oldest in Japan, dating from the eighth century. *Kasiva-bava*, one of the suburbs of Nara, is the ancient *Asivara*, capital of the Kingdom of Zinmu Tenno, founder of the dynasty of the Mikados. From the name of this place, Nip-pon was long known as Asivara, the "Valley of the Pliant Reeds." Not far from Nara is *Kori-yama*, another city of some importance.

Kioto is connected by rail with its sea-port of *Ohosaka*, which, like the two

capitals, is honoured with the title of *fu*—that is, Imperial City—and which ranks as the second in Japan for population, and first for its trade with the interior. From its geographical situation Ohosaka was naturally destined to acquire a commanding position amongst the cities of the Empire. A general survey of the Japanese Archipelago shows at a glance that the most favoured region is the coast

Fig. 203.—Ohosaka.
Scale 1 : 150,000.



of the large island watered by the inland sea. The west side, facing the inhospitable shores of Manchuria, is exposed to cold winds and a heavy surf. The eastern sea-board again is turned towards the boundless wastes of the Pacific Ocean. On the other hand, vessels from China must have first reached the southern shores, which enjoy the three-fold advantage of a genial climate, good harbours, and

proximity to civilised lands. The ports of the Inland Sea also enjoy the same privileges as inland marts, standing, as they do, at the converging point of numerous trade routes. Ohosaka, which lies near the eastern entrance of the Japanese Mediterranean to the north of Sakahi, which it has succeeded as a large sea-port, occupies a central position relatively to the southern division of the great island, while it is connected by a navigable stream with an extremely fertile and densely peopled plain. In the surrounding waters, which present one of the easiest approaches to the Pacific, storms are rare, and the prevailing south-west and north-west winds elsewhere obstructing the coast navigation for months together, are here replaced by breezes alternating with the morning and evening, and thus facilitating the progress of sailing vessels. Thus everything combines to secure a large trade for the sea-port of Ohosaka. Deep-sea vessels are, doubtless, obliged to anchor at some distance from the muddy canals which intersect the city in all directions. But the local merchants have contrived to preserve their foreign relations, and conduct the exchanges through the medium of other ports. By means of numerous steamers of slight draught, this emporium still retains a monopoly of the local traffic in rice, fish, edible sea-weed, timber, and other products, which are distributed from this place throughout the whole of South Japan. Here is prepared the best *saki* in the country, and Ohosaka has also become an important industrial centre, where are manufactured many wares formerly imported from Europe. The fancy goods of this place are now forwarded in large quantities to Europe, and as many as four millions of fans, worth about £26,000, were exported in the year 1877. Watch-making has been recently introduced by a young man who acquired a knowledge of the trade in Switzerland.

Ohosaka is the "Venice of Japan," at least in its lower districts, which are intersected in every direction by rivers and canals, crossed by hundreds of bridges. But one of the quarters rises gently on the north-west side towards the castle, whose half-ruined granite walls still present an imposing appearance, owing to their great size and solidity. From this point a fine view is afforded of the surrounding district. The imperial mint is a model establishment, erected at great expense, and fitted with all the appliances found in similar edifices in the West. The plant was brought from Hong Kong, where it had proved a failure; but under Japanese management it has succeeded so well that the Government has been able to dispense with the further assistance of nearly all the original English staff.

The usurper Hideyoshi, having resolved to make Ohosaka the seat of Empire, caused a castle and palace to be erected here in the year 1583, which were probably the most magnificent group of buildings ever raised in Japan. The palace survived the storming of the castle by Iyeyasu in 1615, and in 1867-8 the members of the European legations were several times received within its walls by the last of the Shoguns. Vast sums were lavished by Hideyoshi on the decorations, and the enormous blocks used in the construction of the principal gateway still attest the magnificent plan of the founder. In February 1868 the buildings within the castle were set on fire by the Shogun faction, and were completely destroyed in a few hours. Since then the fortifications have been occupied by the head-quarters

of the Ohosaka Military Department. The castle domains are nearly 3 miles in circumference, and although smaller than that of Tokio, the castle itself is still the strongest in the Empire. Some of the granite stones composing the bastions range from 20 to 42 feet in length, by 15 to 20 in width, and 6 to 8 in thickness. They are said to have been quarried in the immediate neighbourhood, but even so it is difficult to understand how they were raised to their present position. Even yet the place would be impregnable to any except the heaviest modern guns, and in the hands of skilled engineers might hold out for a long time against European ironclads.

Some of the temples of Ohosaka are amongst the most remarkable in Japan. Such is that of Si Tennozi—that is, of the "Four Heavenly Gods," the "Maha Raja" of the Hindus. It lies in the south of the city, where it has given its name to a suburb classed in the statistical returns as a separate town. Another temple, situated near the shore on the road to Sakahi, an industrial dependence of Ohosaka, is an ancient Shinto sanctuary, frequented especially by fishermen. The turtles and fishes here preserved in the sacred ponds, overgrown with the lotus plant, are fed by the piety of the faithful. But the multitude is at present attracted to the other side of the city, where stands the railway station, centre of the passenger and goods traffic for the whole of South Japan. The Hiogo line, at the junction of the Kioto and Hiogo lines, which is twenty-two miles long, passes by *Amagasaki*, *Nisinomiya*, and some other large towns in the neighbourhood of the bay.

The ancient city of *Hiogo*, which stands near the neck of a promontory, often gives its name to the new town of *Kobe*, from which it is separated by a dry ravine. The headland overlooking Hiogo shelters on the south-west side the harbour of Kobe, which is deep enough for large vessels to anchor close to the shore. The 400 or 500 Europeans settled in Kobe constitute the most important foreign colony in the Empire next to that of Yokohama. The roadstead may be regarded as the advanced outport of Ohosaka, the foreign trade of which passes almost entirely through the new sea-port. During the summer months the strangers residing in Kobe visit the famous hot springs of *Arima*, which lie in a romantic upland valley farther north. Near the springs is a dry well called Tori-ji-goku, or "Bird-hell," the deadly exhalations from which are said to be fatal to birds and small animals approaching too near the spot.

Close to Hiogo is the artificial island of Tsuki-jima, said to have been constructed by Kiyomori in the year 1161 A.D. According to the legend, this island was twice swept away by the waves, when a learned sage being consulted discovered the cause and remedy. The sea at that spot was inhabited by a dragon, who was enraged at the usurpation of his domain, but who might be appeased, if thirty "human pillars" were sunk in the sea and stones inscribed with Hindu texts placed over them. The required number of "pillars" having been collected from travellers passing that way, a great outcry was raised when it was found that some of them were natives of Hiogo. These had accordingly to be released and replaced by others, whose friends again objected so energetically that the ceremony had to be postponed. Meantime a youth named Matsuwo Kotei came

forward and offered himself as a voluntary victim instead of the thirty, adding that the dragon would certainly prefer one willing to thirty unwilling pillars. The offer was accepted and Matsuwo placed in a stone coffin, which was sunk in the sea

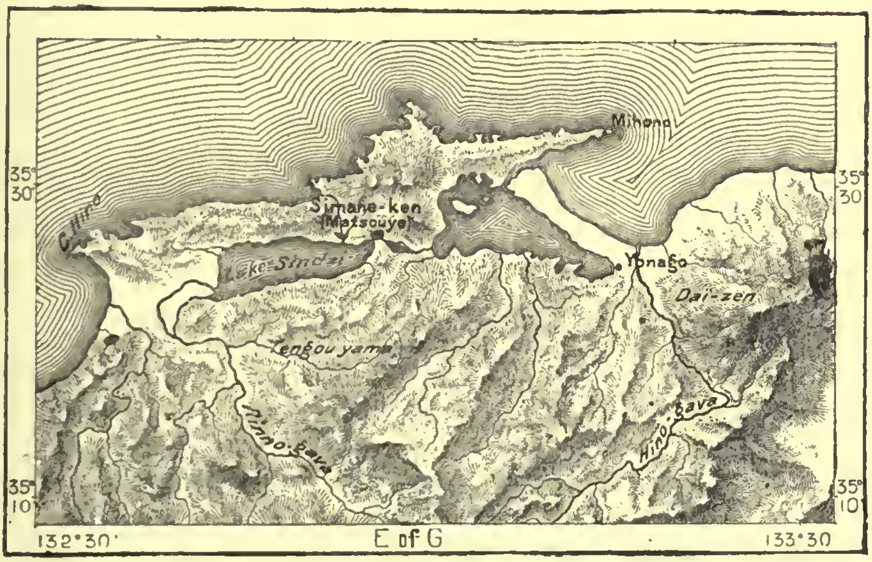
Fig. 204.—Hiogo-Kobe.
Scale 1 : 43,000.

to the entire satisfaction of the monster, who opposed no further obstacle to the construction of the island.

On the north side of the large island the two cities of *Tsuruga* and *Obama* on Vakasa Bay correspond to those of Ohosaka and Hiogo, with which they communicate through Lake Biva and the neighbouring depressions. These northern ports of the isthmus, turned towards the storm-tossed sea of Japan, and possessing merely a narrow strip of arable land at the foot of the hills, could scarcely hope to compete with the commercial cities of the southern shores. But carriage roads and

even railways will ere long serve to forward the produce of the south to the northern coast lands, while the adverse winds of the western waters have been already overcome by the introduction of steam navigation. The harbour of Tsuruga, which is of small extent, but which is accessible to the largest vessels, and which is sheltered by an amphitheatre of hills from all winds except that of the north-west, is the best on the inner side of Hondo, and will probably become the chief station for vessels trading with the ports of Korea and Russian Manchuria. Tsuruga is already one of the *entrepôts* for the edible sea-weeds and fish forwarded

Fig. 205.—Matsuye.
Scale 1 : 900,000.



15 Miles.

from Hakodate, a traffic in which hundreds of junks are yearly engaged. The question of opening this port to European shipping has been frequently discussed.

West of the isthmus, the centre of which is occupied by Lake Biva, nearly all the towns stand on the shores of the Inland Sea, or at least on the southern slope of the peninsula, which is by far the most fertile and populous. Nevertheless a few busy places are also found on the opposite side. Towards the western extremity of Vakasa Bay lies *Yura*, in the midst of orange groves which yield the best fruit in Japan. In the neighbourhood is found the "third wonder" of the country, the Amatate-basi, a natural causeway of rocks projecting far into the sea. Farther on the highway along the coast traverses the towns of *Tottori* and *Yonago*. A little west of the latter place stands the picturesque town of *Matsuye*, or *Simane-ken*, on the banks of the winding brackish lagoon of Sinzino-ike, which communicates through a narrow outlet with the sea.

Akasi, the first place lying west of Hiogo near the coast of the Inland Sea,

occupies on the south side a commanding site, whence is afforded a magnificent panorama of the island of Avadzi and the two fine bays surrounding it. Farther on *Himedzi*, associated with the memory of Taïkosama, lies at the outlet of an extremely fertile valley, and at the junction of several routes, one of which, built by French engineers, is the best in Japan. It leads to the interior of the peninsula and to the productive mines of *Ikuno*, the chief metallurgic establishment in the Empire. The French directors, by whom it is managed, reduce the gold and silver ores for the imperial mint at Ohosaka, but they have not yet begun to smelt the rich copper ores of the same district. The chief industry of Himedzi is the leather ware still prepared according to the old Japanese method, and rivalling in beauty and durability that formerly produced in Cordova.

The inland town of *Tsu-yama* is occupied chiefly with spinning, dyeing, and ironmongery. Both *Oka-yama* and *Fuku-yama*, which lie on deep inlets or creeks of the Inland Sea, were the former residences of powerful daimios. But they have now been outstripped by the commercial port of *Onomitsi*, one of the chief stations of the coast steamers plying between the two sides of the winding Inland Sea.

East of Ohosaka and Hiogo-Kobe the most important port in these waters is *Hiro-sima*, which, like Ohosaka itself, lies at the northern extremity of a crescent-shaped bay, and on the mouths of a river winding through a fertile plain. With its numerous winding canals, bridges, and boats plying in all directions, this place might also claim to be regarded as a sort of Japanese Venice. On one of the islands studding the bay over against Hiro-sima stands another of the "three wonders" of Japan, the much frequented Shinto temple of Itsku-sima, or "Isle of Light," consecrated to the three divine virgins sprung from the broken sword of the God of the Winds. The sanctuary contains some curious antique wood carvings, but the finest objects in the island are the magnificent woods, which are never touched by the axe. Previous to the revolution of 1868 no food was allowed to be consumed on the island, where all burials were also interdicted. At the death of any of the priests, pilgrims, innkeepers, or fishers, who form the whole population of the island, those engaged in removing the body to the mainland were obliged to remain away for fifty days, and on their return were confined in a sort of quarantine for the same period. It is still forbidden to cultivate the soil of this holy island of Itsku-sima, so that all provisions have to be brought every morning from across the water. On the arrival of the boats hundreds of tame deer collect from the depths of the forests, to receive their share in the distribution of the food.

Beyond Hiro-sima, and on the west side of the bay, stands the industrial town of *Ivakuni*, noted for its paper, matting, and woven goods manufactures. Farther on several less important places follow from inlet to inlet as far as the Simono-seki (Akamaga-seki) channel, the north side of which is occupied by the straggling town of like name. Enclosed between wooded hills and the sea, Simono-seki has been called the Constantinople of the Japanese Bosphorus, although occupying a secondary place amongst the cities of the Empire. The neighbouring shores yield the edible sea-weed of commerce. The large city of *Hagi*, standing on a roadstead

studded with islands and islets, has been recently succeeded as capital of the province of Nagato by *Yamagutsi*, which lies farther inland on a small affluent of the Japanese Mediterranean. In the neighbourhood are numerous thermal springs.

Topography of Sikok, Kiu-siu, and Riu-kiu.

All the important towns of the island of Sikok stand either on the coast, or in the immediate vicinity of the sea. Most of them face the mainland of Hondo, from which they are separated by straits, which may easily be traversed in a few hours. The attractive force of Kioto and Ohosaka has drawn the inhabitants especially to the north side, where, going east and west, the towns of *Toku-sima*, *Takamats*, *Marugame*, *Imabar*, and *Matsu-yama* follow each other in quick succession. *Uvazima* alone stands on the strait which separates Sikok from the island of Kiu-siu. On the south coast, which faces the open sea, there is only one town, *Kotsi*, capital of the formerly powerful feudal principality of Toza. Thanks to the intelligence and industry of its inhabitants, Kotsi has become the busiest place in Sikok, and the centre of the paper manufacture for the whole of Japan.

The most animated part of the large and populous island of Kiu-siu, or the "Nine Lands," is turned towards the south and west—that is to say, towards China and the southern waters first reached by vessels from the West. On the east coast the only important place is *Miyasaki*, and on the north-east, facing the Inland Sea, the only large centres of population are *Usuki* and *Nakats*. *Oïta-ken*, or *Funaï*, where the Catholic missionaries founded the first Christian community, is now in a state of decay, as is also *Kokura*, which stands over against Simono-seki, south of the entrance to the Inland Sea. The silting of its harbour now prevents large vessels from approaching Kokura, while the passenger and goods traffic, which formerly followed the coast route from Nagasaki to Tokio, and which was, consequently, obliged to use the ferry at Kokura, is now conducted by steamers, which are no longer obliged to stop at this place. The marine channel here, about 1,800 yards broad, will, ere long, be probably crossed by an already projected railway viaduct.

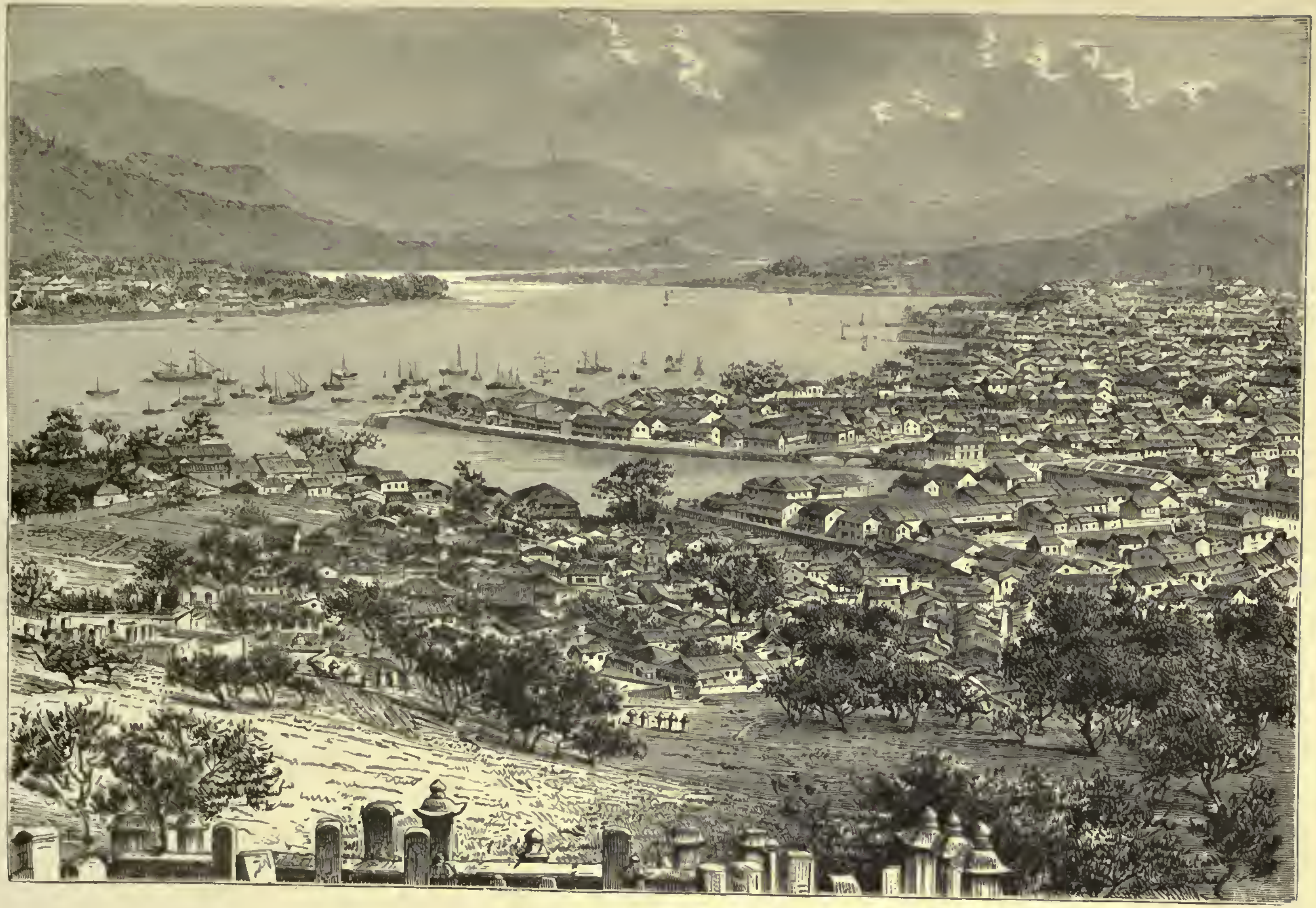
The twin towns of *Fukuoka* and *Hakata*, separated by the mouth of a small river, which falls into a picturesque bay, concentrate all the trade of the north-west side of Kiu-siu. Fukuoka, lying to the south, comprises the administrative and aristocratic quarters, while the traffic and industries are centred in Hakata, where are manufactured some fine silk and cotton goods. Some temples and old flat-roofed houses in the neighbourhood are the only stone buildings which existed in Japan before the late revolution. The two cities are connected by much frequented routes with the populous towns of *Kurume* and *Saga*, situated farther south, near Simabara Bay. In the neighbouring peninsula of *Hizen* are some coal and kaolin deposits. Here, and especially near Arita, in the same district, are produced the finest Japanese porcelains; amongst others, the small delicate and transparent shell-shaped cups. Over two hundred ovens are constantly burning round about Arita. These wares, which have long been imitated by the Dutch, are indifferently known

as Hizen, Arita, or Imari porcelains, from the names of the province, the industrial town, and the sea-port whence they are forwarded. The town of *Hirado* or *Firando,* in the island of like name at the extremity of the peninsula, is much frequented by the steamers plying along the coast. In the seventeenth century, for the ten years from 1613 to 1623, this place was thrown open to the English and Dutch traders.

Nagasaki, or "Cape Long," which became famous in the West as the only place in the Empire not closed to foreign trade after the expulsion of the Portuguese in 1623, is by no means one of the largest cities in Japan. Although its excellent port, or rather the inlet, is from 60 to 100 feet deep, and well sheltered by the surrounding hills, it has the disadvantage of being situated at the extremity of a narrow peninsula destitute of fertile or productive lands. But while its foreign trade has remained almost stationary, the local traffic has, nevertheless, considerably increased, entirely, however, to the profit of the native shipping. Nagasaki exports little agricultural produce, but does a large trade in lacquer and mother-of-pearl wares, enamelled and *cloisonné* pottery, and other products of the local industries. A portion of its export trade is now shared by *Fukabori,* and some other neighbouring towns. But, thanks to its historic associations, Nagasaki still remains one of the most interesting places in Japan for all intelligent European travellers. Its bay also presents one of the finest prospects in these waters, although the view has been somewhat marred by the erection of unsightly fortifications on the surrounding headlands. The bay is encircled by an amphitheatre of green hills, rising to a height of 1,000 feet, laid out in well-cultivated terraced plots, or clothed to their summits with a dense forest growth.

The entrance of the bay is studded with numerous islets, amongst which is the solitary rock of *Takaboko,* or the "Lofty Spear," the Papenberg, or "Priests' Hill" of the Dutch, so named in memory of the missionaries and Japanese converts said to have been hurled from this spot into the sea in the year 1622. Above the city the place is also shown where twenty-six priests were crucified in 1597. The narrow artificial fan-shaped islet of *De-sima,* where the Dutch traders were confined, like victims of the plague, is now connected with the mainland, and the buildings which served as the prison houses of the foreigners from 1639 to 1859 have been destroyed by a fire. In the interior of the city is shown the quarter where the Chinese merchants were confined. The neighbouring town of *Inasa* possesses some dockyards, reluctantly ceded to the Russian Government for refitting its vessels. Farther south, and beyond the bay, are scattered several islands, amongst others Taka-sima, which has some coal mines worked according to the European method. In 1881 the daily yield was about 1,000 tons, or as much as that of all the rest of Japan.

The town of *Simabara,* which was destroyed by an eruption from Mount Unzen in 1792, lies at the east foot of this volcano, whence flow numerous hot springs. It commands the west entrance of the large bay of like name, while to the east of the opposite side, and some distance inland the town of *Kmamoto* (*Kumamoto*), is grouped round an ancient stronghold, whose sloping bastions are crowned with verandahs and elegant houses under the shade of camphor trees. This is the most

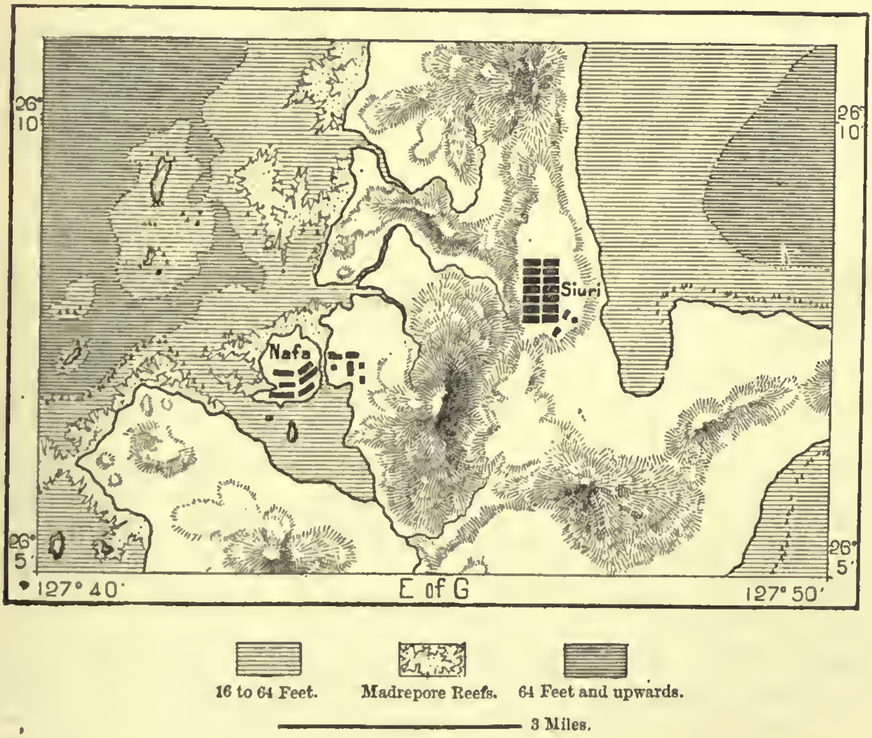


BIRDSEYE VIEW OF NAGASAKI.

central as well as the largest city in the island; but there are few important centres of population in the district, and the place has no harbour, although it is accessible to flat-bottomed craft, which are here loaded with produce for the Nagasaki market. On the other hand the famous principality of Satsma (Satzuma), "land of the brave and intelligent," in the southern part of the island, has no large cities. But along the coast or in the vicinity of the sea there are several busy places, such as *Idzmi, Akune, Sendai, Kaseda, Kago, Miyanoziô, Yama-gava, Kadziki, Kokubu,* and on *Kago-sima* Bay the town of like name. This famous place, whose citadel was bombarded by the English in 1864, stretches along the west side of the bay over

Fig. 206.—Nafa and Siuri in the Island of Okinava.

Scale 1 : 150,000.



against the magnificent solitary volcano of Sakura. The trade of Kago-sima is insignificant, and it has no noteworthy industries except faience and imitations of all the "Old Satsma" porcelains. Recently some Japanese capitalists have here established a cotton spinning mill and a manufacture of arms. Kadziki, at the north-west angle of the bay, is much better situated for trade, its harbour being far less exposed to storms, while it enjoys easy communication with the productive districts in the north. According to Voyeïkov, it would soon become one of the most flourishing sea-ports in the Empire were it thrown open to European shipping. The tobacco of Kadziki is already exported to Cuba, whence it is distributed over the rest of the world under the form and name of "Havanna cigars."

The inhabitants of Liu-kiu (Riu-kiu), being scattered over the numerous islands of the archipelago, are mostly concentrated in small villages lying on the banks of the creeks. The only towns worthy of the name are found in the large island of the central group, Okinava-sima (Ukima), the Chung-ching-tao of the Chinese. Here *Nafa* or *Nava*, standing on a bay completely sheltered from all winds, has become the most frequented sea-port in the archipelago, notwithstanding the numerous reefs obstructing the approach to the roadstead. Its chief exports are sugar, cotton, and silks, which are shipped by Japanese vessels for the northern islands to a yearly value of about £40,000. A paved route, one of the finest in the Empire, winds between wooded hills through a pleasant valley from Nafa up to *Siuri* (*Siuli*, *Shui*, *Kinching*), capital of Riu-kiu. Standing on a plateau which overlooks the two seas, this town is regularly laid out, and surrounded by fine plantations of areca and other tropical plants. One of its buildings bears the title of University.

The large island also contains two other towns, *Tomau* and *Kumai*, and the urban population numbers altogether 60,000 souls, or half of the population of Okinava, consisting exclusively of *Sizuku*, or "nobles." All the peasantry are *heïmin*, or "plebeians," and are distinguished from the nobles by the bronze pins worn in their hair.*

The Bonin Archipelago.

Besides Liu-kiu and the numerous islands geographically depending on the main archipelago of Nip-pon, the Japanese Government also lays claim to a small group lying in the Pacific Ocean, 600 miles in a straight line to the south-south-east of Kioto. This solitary group is known in Europe as the Bonin Archipelago, *Bonin* being a corruption of the Japanese *Munin-to*, or "Uninhabited Islands." But having been again occupied in recent times, they should, properly speaking, resume the name given to them at the end of the sixteenth century, when Prince Sadayori, driven thither by a storm, took possession of them on behalf of the Government, and gave them his family name of *Ogasavara*. At that time they had already been sighted by the Spanish explorer Villalobos, when navigating those waters in 1543. A century later on the Dutch Captain Matthys Quast, accompanied by the illustrious navigator Abel Tasman, also surveyed the southern islands of the group, which already figure on various contemporary charts of that part of the Pacific Ocean. Nevertheless the memory of these discoveries had been completely forgotten when the American whaler Coffin visited the southern islands in 1823. Next year he was followed by his countryman Ebbet, also a whaler, who explored the central islands of the archipelago. In 1827 the English Admiral Beechey occupied the Ogasavara group, and the English continued to claim possession of it till the year 1861, when the question was finally settled in favour of Japan.

Although frequently visited by whalers and others since the hydrographic surveys of Beechey, Lütke, Collinson, and Perry, the Bonin Archipelago is still far from being fully explored, and only a very few points have been astronomically determined. The great discrepancies still prevailing in the outlines and nomen-

* Gubbins, in Proceedings of the Royal Geographical Society for October, 1881.

clature of the various islands are evident from Perry's map compared with the Japanese chart of the two principal groups of Peel and Coffin. On the European maps the two northern groups, far less important than the others, bear the names of Kater and Parry. There are altogether four groups, comprising eighty-nine islands, with a joint area of 381 square miles, and a total length of no less than 84 miles. All these islands, which are disposed in the direction of the meridian, may be regarded as a geological continuation of the volcanic chain of the "Seven Islands" lying south of Yedo Bay. Hatziseo is distant 390 miles from the Parry group; but other intermediate islets rise above the surface, while temporary volcanoes are known to have made their appearance in these waters. The hills of the Ogasavara Archipelago, some of which rise to a height of 1,300 feet, are also mostly of volcanic formation. They abound in lavas, tufa, basalt columns, while the crests of the cones terminate here and there in craters. But schists and crystalline rocks also occur, nor did the naturalists of Perry's American expedition observe any traces of recent igneous action.

Lying between the 28th and 26th parallels of latitude, beyond the cold oceanic current, these islands enjoy a tropical climate, warmer than those of the Liu-kiu Archipelago, although the latter are situated nearer to the equator. The forests clothing the hillsides belong to the vegetation of the torrid zone, consisting mostly of palms such as the areca and pandanus, besides the sago plant and a species resembling the cocoanut. Here are also tree ferns, but the camphor tree has not yet been discovered. The giant of these woodlands is a species of mulberry, the stem of which exceeds 13 feet in circumference. The soil, being composed of volcanic *débris*, is extremely fertile, yielding all the Japanese cereals, the sugar-cane, banana, pine-apple, tallow tree, and wax plant. In the valleys the edible mushroom grows in the greatest profusion.

There are no indigenous quadrupeds, and the sheep, goats, pigs, cats, and dogs found in the wild state are the descendants of domestic animals landed on the islands by the early navigators. A few harmless reptiles glide amidst the rocks, and the forests are tenanted by a very limited number of birds. When the first explorers landed on the islands these birds betrayed no fear of man, and allowed themselves to be taken by the hand. The islets abound in various kinds of fishes, cetacea, crustacea, and turtles.

The archipelago was first occupied in recent times in the year 1830 by immigrants, who traded with the whalers. At the time of the American expedition the island of Peel, the Tsitsi-sima of the Japanese, had a population of thirty-one souls, Americans, English, Portuguese, and Polynesians. In 1880 their numbers had greatly increased, for in that year there were no less than a hundred and sixty houses, of which a hundred and thirty belonged to Japanese subjects. Peel is the only inhabited island, and here is *Port Lloyd*, the *Oho Minato* of the Japanese, and the centre of the administration. It occupies the interior of a crater whose sides have fallen in, and affords good anchorage in 130 feet of water.

Vital Statistics—Agriculture.

Although Japan is to a large extent covered with mountains, and in the north too cold to be thickly peopled, the population of the archipelago is, nevertheless, far denser than that of France or of many other countries in the west of Europe.* In Nip-pon proper, that is in the "Eight Islands," there are about 230 inhabitants

Fig. 207.—Bonin, or Ogasavara Archipelago.

Scale 1 : 900,000.

According to Perry. According to the Japanese.

18 Miles.

to the square mile, and the increase has been very rapid since the revolution of 1868, when regular official censuses began to be taken. The returns gave 35,110,825 for the whole Empire in 1871, and 35,925,000 in 1880, so that for the

* Area and population of Japan :—

	Area in square miles.	Population, 1880.
Nip-pon	112,000	35,451,413
Yeso and Kuriles	38,000	163,355
Liu-kiu	900	310,545
	150,900	35,925,313

intervening nine years the increase was at the rate of about 90,000 yearly. Hence in the natural excess of births over deaths Japan stands nearly on a level with Great Britain, while the population of both countries is about equal. Should it continue to enjoy internal peace, there can be no doubt that the archipelago will outstrip France in the number of its inhabitants long before the close of the nineteenth century.

The returns having been carefully made, the general results may be accepted as approximately true. Consequently there can be no reasonable doubt that in Japan the male is in excess of the female population, a remarkable fact already attested by the ancient national records. The excess seems to be about three per cent., whereas in European countries, or in those in the enjoyment of European culture, this proportion is found to be reversed in favour of the female sex wherever systematic returns have hitherto been made.*

How such a large relative population can be supported in the land is explained by the diet and habits of its inhabitants. The national tradition recognises five sacred plants, rice, wheat, barley, sarasin, and the *azuki* pea, which the Wind-God, brother of the Sun, extracted from the body of the Goddess of the Great Air, and which he planted in the soil of South Nip-pon. Amongst these five plants rice holds by far the first rank, and supplies the chief food of the people. Every person usually requires about two and a half pounds daily, but the vegetables, fruits, and farinaceous preparations added to the staple article of diet do not average more than ten ounces. The poor scarcely ever touch meat, which is little eaten even by the upper classes. Thus all the arable land, formerly valued at scarcely more than 11,000,000 acres, is directly employed in the production of food. Wherever it can grow, even on the slopes of the hills and mountains, which cannot be irrigated without great labour, rice is planted. Nor is it loosely sown, but disposed by the hand in parallel lines, carefully manured with animal substances and constantly watered.

Rice and Tea Culture.

"Rice being the staple produce, the seasons for sowing, growing, and reaping, are diligently watched by the farmers, who formerly cultivated the land under the daimios as part of their retainers, but now farm under the Mikado's government, paying an annual tax or rent. The rice lands generally lie fallow all the winter, and consequently yield only one crop in the year. In the last days of April, or about tho 1st of May, little patches of ground are prepared in the corners of the fields as seed-beds for the young plants. Here the seed is sown thickly, sometimes having been steeped in liquid manure previously to its being sown. It vegetates in the wonderfully short time of three or four days if the weather be moist or warm, as is generally the case at that season of the year.

"In the meantime, while the seed-beds are vegetating, the labourers are busily employed in preparing the land, into which it is to be transplanted. This operation commences at the beginning of June. About three inches deep of water then cover

* Proportion of the sexes according to the census of 1880:—men: 18,210,500; women: 17,714,823.

the fields, and the planting goes on with astonishing rapidity. A labourer takes a lot of plants under his left arm and drops them in little bundles over the inundated soil, knowing almost to a plant what number will be required. Others, both men and women, take up the bundles which are thus thrown down, and the planting commences. The proper number of plants are selected and planted in rows by the hand in the muddy soil. When the hand is drawn up the water rushes in, carrying down with it a portion of the soil, and thus the roots are immediately covered. The planting season is at its height about midsummer, and is generally over by the middle of July. By November the bright green crops are waving in the breeze, the ears are ripe and harvest is concluded.

"Besides this great summer crop of rice there are winter crops of wheat, barley, buckwheat, peas, beans, onions, and potatoes. The three first mentioned may be considered as the staple winter productions which are cultivated on land above the level of the rice valleys. The wheat and barley are sown in the end of October or beginning of November; these soon vegetate and cover the hillsides with lively green during the winter months. As the land has been carefully cleaned and prepared previously, scarcely any further labour is necessary until the following spring.

"By the beginning of May the plants are in full ear, and harvested in June, the corn being cut with a small reaping-hook. When housed the heads are struck off by a short bamboo and fall through a grating from the straw. These are then laid on a broad flooring of cement, hard and smooth, and the wheat or barley threshed out with a flail." *

Nevertheless, a portion of the land has to be reserved for the cultivation of economical plants, such as the mulberry, ginseng, indigo, and trees yielding vegetable wax, lacquer, and paper. The tea plant is carefully cultivated, and yields a produce highly appreciated by the American buyers, who prefer it, notwithstanding its roughness, to that of Hankow and Shanghai. In some districts of the southern islands the facilities of exportation have given a preference to the growing of oranges even over that of cereals. Siebold enumerates altogether about five hundred plants cultivated in Japan for economical, ornamental, and other purposes, and of this number over one half have been introduced from abroad.

Next to rice by far the most important plants are the mulberry and tea. "Silk is more or less produced in almost every province of the main island north and east of Osaka. But the four districts in which it is cultivated in the greatest abundance are Oshui, Joshui, Koshui, and Sinshui. Oshui produces the largest quantity, but the silk does not equal in quality and fineness of size that of the other districts. Joshui and Sinshui are noted for the fine size of their silks, which fetch the highest prices in the London market. But the greater part of them are sold on the Continent, as being better reeled than any other silk from the East. During the failure of the silk crops in Italy and other continental states, through the deterioration of the silkworm, eggs were imported in very large quantities from Japan, which improved the culture.

* Mossman, *op. cit.*, p. 198.

"Tea is still more important than silk, and its cultivation and manufacture employ a considerably greater number of people. The tea plant was introduced from China into Japan about the beginning of the ninth century by a Buddhist bodze named Yeitsin, who presented the first cup of tea to Saga, the reigning Mikado, who patronised the cultivation of the shrub. Since then its use has become universal, and the home consumption is now so great that there is not much left for exportation. So genial are the climate and soil of some districts for its growth that the plant grows wild, while it forms hedges in gardens.

"Tea is produced throughout the greater part of Nip-pon and in all the provinces of Kiu-siu. The finest qualities come from Yamu-siro, but the two largest producing districts are Isay and Owari. Suringo, Simosa, and Koshui are the provinces which supply the Yokohama market with the earliest new teas.

"Tea of the finer qualities requires special care in the cultivation. The plantations are situated remote from the habitations of man, and as much as possible from all other crops, lest the delicacy of the tea should suffer from smoke, impurity, or emanations of any kind. Manure of a special kind is applied to the roots, consisting of dried fish like anchovies, and a liquor expressed from the mustard seed. No trees surround the plantations, for they must enjoy the unobstructed beams of the morning sun, and the plants thrive best upon well-watered hillsides. The plant is pollarded to render it more branchy, and therefore more productive, and must be five years old before the leaves are gathered.

"The process of harvesting the leaves, or rather of storing the tea harvest, is one of extreme nicety. The leaves of the finer and the coarser teas are sorted as they are plucked, and no more of a kind are gathered in a day than can be dried before night. There are two modes of drying, called the dry and the wet process. In the one the leaves are at once roasted in an iron pan, then thrown upon a mat, and rolled by the hand. During the whole operation, which is repeated five or six times, or till the leaves are quite dry, a yellow juice exudes. This is called the dry preparation.

"In the wet process the leaves are first placed in a vessel over the steam of boiling water, where they remain till they are withered. They are then rolled by hand and dried in the iron roasting pan. When thus prepared, less of the yellow juice exuding, the leaves retain a lighter green colour, and more of fine flavour. When fresh dried, the tea is delicately susceptible of odours and requires to be carefully guarded from their influence. The finest qualities are packed in jars, in order to retain their aroma.*"

The Japanese are excellent husbandmen, or, at least, market gardeners. They till the land in the same way that the European gardeners work their plots with the spade and hoe. No weeds are allowed to sprout, and everything available for manuring purposes is carefully utilised. The quantity of animal refuse used in this way probably exceeds that which is actually consumed, for enormous quantities of fish are imported from Yeso for the sole purpose of enriching the land. Nevertheless, the soil is inadequate for the ever-increasing population. All the plains

* Mossman, p. 189.

are under tillage, and nothing now remains to be reclaimed except some marshy alluvial tracts and the slopes of the mountains.

Natural Resources of Yeso.

The island of Yeso no doubt presents a vast field of colonisation to the Japanese. Larger than Ireland, and yielding the same description of plants, it might support a population of several millions. But it is too cold for the cultivation of rice, so that the people emigrate reluctantly to a region so much more inhospitable than their own. Nearly all the Japanese attracted to Yeso by the Colonial Office regard themselves as exiles, and never fail to seize the first favourable opportunity to return to their homes. But although offering such limited agricultural advantages, Yeso must soon attract attention in consequence of its vast resources in timber and minerals. The whole island may be said to constitute a boundless forest, consisting of various species, amongst which are thirty-six kinds of trees useful to the carpenter and cabinet maker. Scarcely does the traveller leave the beaten track when he finds his progress arrested by thickets of creepers, bamboos, and other undergrowths, overshadowed by trees of great size. It is difficult even to cross the clearings, where the clusters of the *Eulalia Japonica* grow in dense masses to the height of a man on horseback.

Until good roads are opened Yeso must continue to derive its importance exclusively from the coast fisheries. In the abundance of its marine life this island resembles Oregon, on the opposite side of the Pacific. Some of the nets employed in the salmon fisheries are 4,000 feet long, and require seventy men to manipulate them. At the end of the day, after three draughts, as many as 20,000 fish are found to have been taken in these nets. Even the worst seasons will yield 1,200,000 salmon, with a total weight of 3,000 tons.

Fishing is also successfully pursued along all the coasts of Japan proper and of the Liu-kiu Archipelago, and fish is far more generally consumed by the people than meat. Piscicultural establishments have even of late years been formed on a large number of streams in Central Nip-pon. Mother-of-pearl is collected by divers in the Liu-kiu Islands, while the rorqual and other species of cetacea are pursued by daring fishers in the open seas. A favourite subject of pictorial representation is the fleets of smacks pursuing these large animals, and driving them with the harpoon towards strong wide-meshed rope nets.

Land Tenure—Mining Industry.

The land belonged formerly to the State, under which the peasantry held it as hereditary tenants. Thanks to this perpetual tenure from father to son, the cultivators had at last acquired a certain independence, ranking in the social scale immediately after the nobles, and above the merchants and artisans, who, however wealthy, were regarded as their inferiors. The land-tax varied according to the nature of the crops, the abundance of the harvests, and the caprice of the prince.

Fixed in some districts at no more than one-tenth, it rose in other places to a third, a half, and even three-fifths of the whole yield. The recent revolution, by which the whole social system has been so profoundly modified, could not fail to deal with the land question. By a tax of two and a half per cent. the peasantry have become the virtual proprietors of the soil, and the Japanese law of land tenure may in a general way be said to have been conformed to the Roman right. Large landed estates have already been developed in Yeso, in the northern section of Hondo, and even in certain central districts, wherever the land was found lying fallow. Some of these recently formed domains rival in extent those of Ireland or Russia. There is one estate near Nihi-gata entirely under rice, which is no less than twenty square miles in extent, and yields an income of about £16,000 to the owner.

The laws of inheritance still bear traces of a matriarchal social order. The eldest son inheriting a patrimony cannot abandon it, and his wife must occupy it with him and take his family name. The daughter inheriting, when the father has had no male issue, must in her turn remain on the paternal estate, in which case residence also becomes obligatory on her husband, who takes her name. When a new household is founded, if the dwelling has been furnished by the father-in-law the husband also takes the name of the wife who brings him the residence.

The mining industry is of less relative importance in Japan than was formerly the case. In the seventeenth century the Portuguese are said to have annually exported from the archipelago six hundred barrels (?) of pure gold, valued at nearly £800,000. This metal was at that time comparatively plentiful, for it was only twelve times the price of silver. In many mines the copper ores contain a considerable proportion of gold, and these ores were accordingly reckoned amongst the most lucrative articles exported by the Dutch. The Sado gold mines, which are the oldest in Japan, have been worked for centuries, but most of the other mines are not sufficiently productive to continue the works. The only minerals at present mined are silver, copper, and iron.* Considerable deposits of iron are found in various parts of the archipelago, and Urup, one of the Kurile Islands, harbours immense reserves of ores containing as much as eighty per cent. of pure metal. The mines in the neighbourhood of Sendai supply the smelting works with ores sufficient to yield as much as fifty tons of iron daily.

Other metals, such as lead, tin, cobalt, quicksilver, are produced in insignificant quantities, and the petroleum wells have deceived the hopes of speculators, who expected to find in Japan "oil rivers" rivalling those of Pennsylvania. On the other hand the archipelago is extremely rich in coal deposits. The island of Yeso especially contains carboniferous measures estimated by Lyman at 400 billions of tons, a quantity sufficient to supply the present consumption of the whole world for the next 2,000 years. Yet the output in all Japan was no more than 350,000 tons in the year 1879.

Most of the Japanese mines belong to the Government, which has also begun

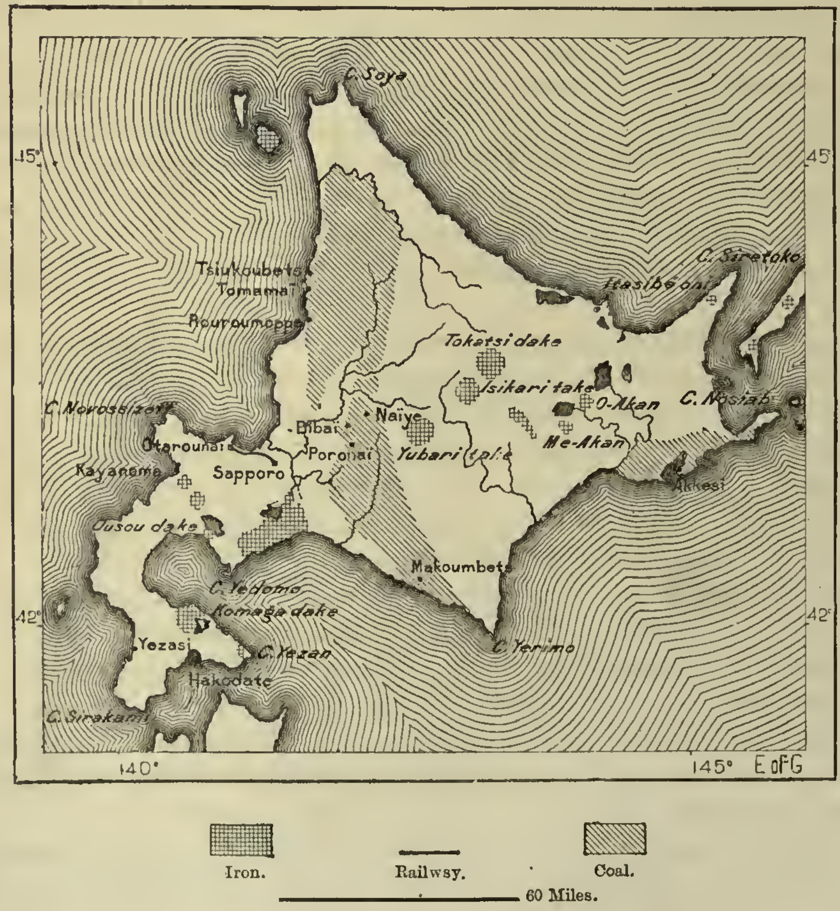
* Yield of gold in Japan (1877) :	1,000 lbs.,	valued at	£52,000
" silver " "	75,000 lbs.	"	233,000
" copper " "	3,800 tons	"	220,000

to work the marble quarries, hitherto neglected on account of the hardness of this material.

But from various adverse circumstances the mining industry bears no proportion to the great natural mineral wealth of the archipelago. "The methods of working, which were until comparatively lately in vogue, were crude and unremunerative; and even now there are many mines which, although worked on foreign principles, yield little or no profit, chiefly on account of their imperfect communication with

Fig. 208.—Mineral Deposits of Yeso.

Scale 1 : 5,500,000.



centres of trade. Far up among the mountains the roads leading to them are often wretched bridle-paths, accessible only to pack-horses, so that transportation is both slow and expensive. The present Government, however, have turned their attention to the improvement of the highways. The recent outlay for costly machinery, and the heavy expenses incurred in sinking shafts, constructing furnaces, &c., have also tended to consume any revenue derivable from the Government mines. Gold, silver, copper, iron, lead, sulphur, coal, basalt, felspar, greenstones, granites (red and grey), marble, rock-crystal, agate, carnelian, amber, pumice-stone, talc,

alum, &c., are found in greater or less quantities. Coal-beds extend from Nagasaki to Yeso. The supply of sulphur is almost inexhaustible, and of wonderful purity." *

Manufactures—Japanese Art—Porcelain.

Although the chief occupation of the people is the cultivation of the land for the local consumption, the Japanese Empire is of all Asiatic lands the most industrial, and the products of its factories are now exported to all quarters of the globe. The Japanese have always been renowned potters. Even the graves of the anthropophagi discovered by Morse have yielded highly ornamented earthenware, the patterns of which persisted throughout the historic ages. In the burial-places of all the subsequent epochs archæologists have found baked clay figures, which were disposed in circles round the graves. Nevertheless, to the Chinese and Koreans the Japanese are indebted for their proficiency in this art. The most famous names of potters in the national records are those brought by a prince of Satsma from a victorious expedition to Korea in 1592, and settled by him at Naesivo-gava, in his principality. These were the makers of the choice imitation porcelains known as "Old Satsma" ware, which are still so highly esteemed, but which have, unfortunately, become extremely rare. The manufacture of porcelains, properly so-called, was also first introduced by Korean craftsmen, who settled in the sixteenth century at Kioto. In recent times the number of keramic works has been greatly increased, and some districts, where the art was hitherto unknown, now produce wares remarkable for the richness of their colours and the originality of their floral and animal designs. The most famous potters' villages differ in no respect from the ordinary hamlets of the country. Each workshop comprises the members of a single family, each of whom watches in his turn over the baking of the materials in the public oven of the commune. In the fabrication of bronzes, also, each object is entirely produced by the same artist, who casts the metal, does the chasing, colours it with oxides, encrusts it with the precious metals, nacre, coral, or pearls.

"A superficial examination of Japanese and Chinese porcelain might lead to the conclusion that there is not much difference between the two kinds. But this is only so far true that, like most other arts, the former is derived from the latter. But a careful comparison of the products of each country will show how much more graceful in form and finish are those of Japan than their Chinese prototypes, which, in comparison, may be regarded as almost clumsy and inelegant. The human figures painted on them do not certainly differ materially in artistic design or proportion of form. But the birds, fishes, insects, plants, and flowers of the Japanese school are infinitely more true to nature than are those of the Chinese designers. There is also a considerable difference in the selection of the subjects, animals such as tigers, bears, and boars being frequently seen on Chinese, but very rarely on Japanese, porcelains. This arises from the fact that there are few such

* "The Land of the Morning," p. 12.

animals in the archipelago, while they still abound in the mountain regions of the northern and western provinces of the Middle Kingdom.

"Japanese porcelain has constituted for several centuries one of the most important articles of export to Europe, where, on account of its excellence, it immediately excited the admiration of connoisseurs, and is to the present day considered one of the most beautiful branches of Oriental art. The chief porcelain manufactories for the finest ware are in the province of Fizen, in the island of Kiu-siu, and especially in the department of Mashura, near the hamlet of Uresino, where the material from which it is made is found in abundance. Although the clay is naturally fine and clean, it is necessary to knead it, to wash it and cleanse it before it acquires the degree of purity required to render the porcelain translucent.

"At another place in the same province the material is found in the hills close to the sea-port town of Imari, on the slopes of Idsumi-yama, from which more than forty different kinds of porcelain are manufactured. This kind of material is hard, and when mixed with the soft clay, it prevents the fabric from cracking or breaking in the oven when being baked. Before this the patterns are painted with fine brushes on the ware. The fire is then kept up for fixing them, which soon dries the earth spread over the outside of the oven.

"Articles designated *Yen-gui*, such as cups, saucers, plates, and dishes of every kind, which are in common use among all classes, and constitute nine-tenths of the porcelain manufacture, are made by hand and turned on the lathe. The cups and saucers, when painted inside and outside with circular lines, are placed on the disc, turned round, and the paint brush thus forms the circle. When they receive two coatings of glaze they are well dried, and placed in the oven, where they are baked a second time.

"There are other localities engaged in the industry, which obtain the raw material for manufacturing porcelain from Kiu-siu, and have come into note since the Japanese exported so largely to the national exhibitions of Europe. Of these the now well-known Satsma ware has obtained pre-eminence. It is of a rich cream colour, bearing tasteful designs of flowers, birds, insects, and other natural objects. Sometimes it is manufactured into elegant chimney ornaments and graceful vases, in imitation of a bamboo stalk and the like. But the foreigners prefer tea and coffee services, card baskets, and other European designs, which restrict native genius in the art.

"Near the ancient capital of Kioto there is a similar description of ware manufactured, but of inferior quality. Of all these tiny productions, that of egg-shell tea-cups, as thin as their name indicates, but sometimes strengthened by delicate bamboo work, is prized highly by connoisseurs. It is said not to be a Japanese invention, but to have been copied from the Chinese many centuries ago."

* Mossman, p. 181.

Lacquer-ware and Paper.

The Japanese artisans have also been for centuries acquainted with the art of weaving heavy linen and silken fabrics, and their brocades, interwoven with gold and silver thread, still form admirable hangings or festive robes. In one of the temples at Nara are preserved some lacquer boxes, said to date from the third century of the Christian era, which attest the superiority of the Japanese in this industry for a period of one thousand six hundred years. The Japanese lacquers of the better epochs fixed on copper, or more frequently on the wood of the *Pinus*

Fig. 209.—Scenes of Industrial Life.
Fac-simile from a Japanese Album.

retinispora, and ornamented with gold, silver, or mother-of-pearl, are amongst the choicest contents of our museums. The most highly esteemed are those of the sixteenth century, a period answering to that of the Renaissance in the West. The finest specimens have a metallic lustre, and are almost indestructible. The *Nile* having been wrecked on the Mikomoto reef, near Simoda, all the treasures she was conveying to the Exhibition of Vienna remained for eighteen months under water. Yet when the lacquer objects were at last brought up by the divers, they were found to be perfectly intact, their polish having lost nothing of its original splendour.

Japanese lacquer-ware far surpasses even the finest Chinese specimens in delicacy and finish. It also possesses an unexplained property—a hardness enabling it to resist the roughest usage without being scratched, and to endure high temperatures, while its polish is the most perfect known. The process of its manufacture is thus described by Jacquemart. "The wood when smoothly planed is covered with a thin sheet of paper or silk gauze, over which is spread a thick coating, made of powdered red sandstone and buffalo's gall. This is allowed to dry, after which it is polished and rubbed with wax, or else it receives a wash of gum-water, holding chalk in solution. The varnish is laid on with a flat brush, and the article is placed in a damp drying-room, whence it passes into the hands of a workman, who moistens and again polishes it with a piece of very fine-grained soft clay slate, or with the stalks of the horse-tail or stave-grass. It then receives a second coating of lacquer, and when dry is once more polished. These operations are repeated until the surface becomes perfectly smooth and lustrous. There are never applied less than three coatings, but seldom more than eighteen, although some old Japanese ware are said to have received upwards of twenty.

"The most highly esteemed varieties are the gold, the black, and the red lacquer, the last of which seems peculiar to Japan. It is nearly always of a pure bright colour, and the ornamental parts are very carefully executed. The black variety is distinguished by the number of its coatings and the perfection of its polish, which has the effect rather of a metal than a varnish. The illusion is enhanced by the delicacy of the reliefs in gold, certain pieces looking like burnished steel incrusted with pure gold. Some of the specimens, especially those known as "mirror lacquer," are remarkable for the purity of their lustre, and for their peculiar style of ornamentation, the process of which has remained a mystery. On the surface are brought out the details of plants executed in gold, with the most delicate reliefs. Then, according as the stems sink in, the reliefs disappear, the details vanish, and the whole continues to fade away, as might an object immersed in water, and gradually obliterated by the depth and absence of light. Black lacquer is applied to every conceivable object, from furniture, panels, folding-screens, tables, seats, and stands, to the daintiest artistic conceptions, such as fruits, flowers, figures, armorial bearings, plants and animals."

The Japanese are also pre-eminent in the manufacture of certain kinds of paper, which they prepare from the pulp of the mulberry, the *Brussonetia papyrifera*, the *hibiscus*, and several other species of plants. If, as has been pretended, the rank of nations in the scale of civilisation is to be determined by the quantity of paper consumed by them, the Japanese might certainly claim the first place. They use paper, not only for printing and painting, but also for a multitude of other purposes. Quires of paper replace our handkerchiefs and table-napkins; the stools used as pillows are covered with paper; the windows have panes of paper instead of glass, while panels of the same material form the movable partitions of the houses. Paper garments coated with vegetable wax are worn in rainy weather; paper is still the substitute for the leather coverings of the vehicles drawn by hand; and in machinery paper bands are found more durable than those made of

leather. All attempts to imitate some of the Japanese papers have hitherto failed, but for perfect whiteness the English and French products are superior, those of Japan always showing a yellowish tinge.

The *Kaji*, or paper-tree, and the process of its conversion into paper are thus described by Mossman. "From a strong-branched wood root rises a straight, thick, equal trunk, very much branched out; covered with a fat, firm, clammy, chestnut-coloured bark, rough without, but smooth on the inside, where it adheres to the wood, which is loose and brittle, with a large, moist pith. The branches and twigs are very plump, and covered with a small down, or wool, of a green colour, inclining to purple. Every year, when the leaves have fallen off, in the tenth Japanese month, which answers to our December, the twigs are cut into lengths, not exceeding three feet, and put together in bundles, to be afterwards boiled in an alkaline lye. These faggots are placed upright in a large kettle, which must be well covered, and boiled until the bark shrinks so far as to allow about half an inch of the wood to appear naked at the top. When they have been sufficiently boiled they are taken out into the air to cool, after which the bark is stripped from the wood, which forms the pulp for making the paper. For this purpose it has to be washed and cleansed, and this process is of no small consequence in producing smooth, white paper.

"The washing takes place in a running stream, the bark being placed in a sort of sieve, which lets the water run through, while it is stirred constantly with the hands until it becomes a soft woolly pulp. Having been sufficiently washed, the pulp is spread out upon a thick wooden table, and beaten with a wooden mallet until it is reduced to the requisite fineness. Then it is put into a narrow tub with a slimy infusion of rice, and of a root called *Oreni*.

"The moulds on which the paper is to be made are formed of the stems of bulrushes cut into narrow strips. The sheets are then lifted one by one from the mould, and laid up in heaps upon a table covered with a double mat, and a small plank or board placed on each heap. Weights are gradually piled up for a day, after which the sheets are lifted off singly on the palm of the hand, and transferred to a rough plank, on which they are placed, and afterwards dried in the sun. The finest quality is of a white, smooth surface, although, as already remarked, never quite approaching the pure white colour of the best European paper."

The Japanese are also our masters in wicker-work and in the preparation of straw objects, of which they have a surprising variety, ranging from waterproof cloaks to marionettes of all forms and sizes. The leather industry is represented in several towns by some choice articles, but as a rule this material is very little used in the industrial arts, owing to the contempt in which the tanner's trade is held. Those engaged in the dressing of skins were formerly included in the despised caste of the Etas. Amongst the noteworthy products of Japanese industry, mention should be made of those "magic mirrors" whose dazzling brightness, according to the legend, induced the inquisitive and jealous Sun-Goddess to emerge from the cave to which she had withdrawn. The images projected by these mirrors on walls, under the influence of heat and of the pencil of rays, are due to

the fact that the metal surface is not of uniform thickness and consistency. Hence when heated it expands irregularly, and thus reveals, by the calculated reflection of its varying reliefs, the designs or writings which are, as it were, embodied in it.

The striking originality and endless versatality of the national artistic genius are well illustrated by the Japanese ivory carvings, many of which challenge our highest praise and admiration. Among these objects are the *pitongs*, or pencil-cases, no less vigorously executed than those of China. The pliant material is also fashioned into curious boxes and cabinets, cunningly embellished with fine reliefs

Fig. 210.—Street Scenes.
Fac-simile from a Japanese Album.

divided into compartments most skilfully put together, forming those medicine-chests that look like a single piece, and on which stand out figures of the *dairi* in their rich costumes, their emblems carefully reproduced and often held by attendant officers crouched behind them. All this microscopic work is occasionally heightened by touches of lacquer and gold, and incrustations of mother-of-pearl or of *pietra dura*.

Yet it is not this, nor even the miniature caskets with their endless divisions, that excite the greatest wonder. In them we, of course, recognise a marvellous art, but still traditional, and like the Chinese, somewhat mechanical, so that the

style of one piece prepares us for another. But it is in the minute little *netzkés*, as they are called, that to the astonished observer is revealed the unforeseen, the mind of each individual artist, with its manifold types, its surprises and constant flashes of genius.

These little trinkets or charms, known in Europe as Japanese buttons, were the only ornaments with which the upper classes relieved the somewhat sombre hues of the old national costume. Each minute ivory object, with its studied expression, attitude, and dress, often profusely adorned, is an original composition, a chapter, so to say, on history or manners, a caustic satire aiming its darts at the social vices, and not unfrequently at religion itself. One represents the Sinto God Cheu-lao jeering at the followers of the Tao-tse cult, and making the most comical grimaces beneath his prominent skull, which assumes the form of a cucumber ; another shows the same divinity typified by a rival artist as a cuttle-fish impaled upon a rock. Elsewhere groups of devotees are grouped in the most grotesque attitudes, and making the most hideous faces. Nor is there any lack of graceful forms. Jacquemart mentions a group of young women, carved out of a solid piece of ivory, decked with elegant head-dresses and richly attired, one of them suckling a child. On examining the little head bent over her nursling, we are astonished at the skill displayed by the artist, in depicting on such a minute scale the tender care of a mother, and her total abstraction from everything except the child of her affections. Very wonderful also are the figures of professional beggars, which exist in great variety. Nothing can be imagined more curious or more picturesque than these real or sham cripples, borne on the backs of animals, or themselves leading monkeys about, and grouped in all manner of grotesque associations.

The representations of animals are no less correct and amusing in their infinite humour and variety. Here we have a most lavish display of the most fanciful and whimsical conceptions—frogs dancing a wild sarabande on an old straw slipper ; rats huddled together with their lively faces peeping out in all directions ; a mouse that has taken possession of a fruit, and ensconced itself like the rat of the fable in a cheese. Here is a chestnut pierced by the gnawings of a worm, which has traced out in the ivory a narrow passage, emerging at last through a hole in the brown rind, and crawling to the surface, where it seems as if still creeping, so lifelike is the imitation. Here again is an egg, an irregular fracture in its broken shell giving a peep inside. As far as the eye can penetrate it detects the microscopic figures of a Buddhist pantheon ; each separate divinity may be recognised by his features, as well as by his distinctive attributes.

After studying these ingenious objects, distinguished at once by their technical skill and inspiration, we remain more than ever convinced of the enormous difference between the Japanese and Chinese schools of art. The latter, at once painstaking and skilful, reproduces with undeviating fidelity the types handed down by the national traditions from time out of mind. The former, trained to the independent observation of nature, and left to the promptings of individual genius, infuses into its work that distinctive humour and pungent fancy, which a philosophic mind may delight to embody in grotesque scenes, in order, through them, to aim the

shafts of their satire against the manners of the times. The Japanese ivory trinkets thus present some analogy to the *Punch*, *Charivari*, and other illustrated caricature literature of the European nations.

Decline of Art—Traffic in "Curios."

Since Japan has begun to trade freely with the rest of the world, the national industries have entered on a period of suspense, if not of actual decline. In order to meet the increasing foreign demand, the native craftsmen have been chiefly

Fig. 211.—The Gods
Fac-simile from a Japanese Album.

occupied in the production of cheap wares, whereby their artistic skill has been impaired. Foreign competition has also ruined several of the local industries. Nevertheless, the best traditions of art have been kept alive in the production of bronzes, lacquer-ware, pottery, silks, painted and figured papers. In these branches the works of the Japanese artists are still distinguished for the harmonious disposition of the colours, the sobriety of the ornamentation, the natural grace and variety of the designs. Flowers, foliage, branches, insects, fishes, birds, small quadrupeds, and all natural objects, are depicted with an almost miraculous happiness of expression, a boldness of foreshortening, and a freedom of execution beyond all praise. In the

most offhand way the native artist will dash off vast decorative compositions, in which all the parts are perfectly balanced, and symmetry secured without a repetition of forms. Even in strewing the floors with many-coloured sands, the common people, who are by no means artists by profession, improvise ornamental patterns of surprising truth and lightness. Design enters into the ordinary course of instruction, and the native of Nip-pon is always ready with his pencil. Shrewd observers of nature, the Japanese artists display remarkable skill in seizing the characteristic traits and attitudes of individuals, and the shafts of their satire are aimed not only at the

Fig. 212.—Rats as Rice Merchants.
Fac-simile from a Japanese Album.

despised bodzes, but also at the grandees, always represented, however, under the figure of foxes, apes, wild boars, or such like animals.

Although Japan received its first lessons in Art from China, it soon escaped from mere servile imitation, retaining nothing but the method and processes, which it applied to the objects of its choice with a perfect freedom, full of sprightliness and endless fancy. Even in the traditional art of the Buddhist monasteries the motives imposed by religion are reproduced with a surprising variety of details. But if the human figure is always treated with great energy of action, an astonishing intensity of expression and a remarkable appreciation of types and characters, it is seldom that the limits of the grotesque are not passed, so that the representation usually degenerates into caricature. At the Exhibitions of 1867 and 1878, Japanese

Art, which had long been appreciated by European experts, revealed to an astonished public its incontestable superiority over the Chinese school. It has already exercised considerable influence on modern ornamental designs, especially for porcelains, wall paintings, and woven fabrics. The Japanese school deserved to find imitators in the West, although its fame was established in foreign lands at the very time when it began to degenerate at home through a love of gain and hasty workmanship.

The traffic in "Curios"—that is, in all sorts of artistic objects, old and modern, real or sham, has already become a leading feature of Anglo-Japanese life in the sea-ports open to foreigners, and Dixon gives us a graphic account of the "Curio-men" engaged in this lucrative business. "I had not been long in Japan before I was scented out by the Curio-men. One day at luncheon my boy entered with the information that a *dogu-ya* (curiosity-dealer) had come, and was waiting in the hall. When the meal was over I went to see him. He was a little man, with a simpering countenance, and on my appearance touched the floor repeatedly with his forehead, muttering something the while in a tone of the most perfect courtesy. It was to the effect that he had taken the liberty of coming to hang on to the august master's eyes, in order that he might be so fortunate as to sell to the august master a few old and rare Curios, which he had recently bought from some great daimios.

"Around him his goods were laid out—lacquered cabinets, bronzes, pieces of porcelain, swords, and the like. With a look of the most thorough deference, he squatted while we examined these, his assistant keeping humbly in the background. A cabinet took my fancy. I asked if this were really old. He at once replied in an assuring voice, and pointed with satisfaction to a daimio's crest imprinted on it. 'How much?' I asked. 'It is really a good article, and as this is the first time I will make it cheap, although by so selling it I shall not make a single *tempo* (cent) of profit. Because it is the first time, and the gentleman will no doubt give me his honourable custom in future—it is really old, and I am not telling a lie—I will make it 20 *yen* and 50 *sen* (about £4 10s.).' 'Nonsense! that is far too dear; I believe after all it was made in Birmingham.' This evoked a hearty laugh, and a look at my boy, as much as to say, 'Your master is a knowing one, isn't he?' But the imputation was vigorously repelled. 'No, honourable master, all my goods are genuine; English imitations are in Yokohama only. As this is the first time, I will sell it for 19 yen. I have some cheaper things behind here, but I know the honourable gentleman would not condescend to buy such inferior things. Just look at the difference. This article is really good; 19 yen, even a little more I cannot reduce the price.' 'I offer 12 yen.' The two men look at each other, and laugh incredulously. 'I will reduce the price to 18 yen. I cannot go further without losing on it.' 'Let us split the difference—15 yen.' There is a thoughtful pause, then a low conversation with his assistant, the result being that he bows his head to the floor with a resigned expression, and the bargain is struck.

"A few minutes later there is a sound of much laughter and joking in the servants' quarters, whither the Curio-men have betaken themselves, and my boy,

when he next enters, does not fail to admire the article I have bought, and commend the character of the dealer who has sold it. Presently I catch a sight of that worthy bowing to me through the window, as he walks off with his pack on his back.

"From that day forth the visit of the dogu-ya was an occurrence that could be relied upon almost as surely as luncheon itself. There were about half-a-dozen men with whom I had dealings, and it was not uncommon for two or more of them to arrive at the same time. No doubt all of them alike had learned everything about me from the servants—my tastes, my hours of leisure, whether or not I was hard to drive a bargain with, on what day of the month my pay-day fell, whether or not I was a rigid Sabbatarian, &c. The right of entering the house was possibly purchased from the domestics, in whose quarters they would, in the event of my absence, sometimes wait for me several hours. Their plausibility was as irrepressible as their sagacity. According to their own account they were always giving bargains. At their first visit it was because it was the first time that they agreed to sell their wares at a clear loss. But on every succeeding occasion they professed to make the same sacrifice for some reason or another, often one of an elaborately fictitious character. No exposure could disconcert them. They were always ready to disarm reproof by making an opportune confession. It was quite true that they had once or twice taken advantage of a newcomer's inexperience, but the honourable gentleman with whom they were now dealing was too sharp to have a like fate; he could not be taken in. The august master knew well what he was about, didn't he? And with that the one would look knowingly at the other. If all their customers were as well versed in Curio buying as the honourable master, they would make no profit at all; they would need to start a *jinriksia.* And here they would all laugh good-naturedly.

"They were always ready for any amount of banter, and did not hesitate to reply to a piece of irony. 'It is a lie;' an expression which in English seems an insult, but which on account of the inadequate appreciation of truthfulness that prevails amongst the Japanese, in common with other Easterns, often means little more than 'You are joking.'

"Even the most artful of these Curio-men were generally kind-hearted fellows, so much so that it was difficult to lose one's temper even when most flagrantly cheated. And some of them were certainly more honest than others. There was one jolly fellow who, I remember, brought me a present at the New-Year time, and on the morning after a serious fire had occurred at the college several of them called to congratulate me on my escape." *

Foreign Trade.

After the expulsion of the Portuguese, and the extirpation of the native converts, the trade of Japan with Europe had fallen in the year 1685 to the sum of 300,000 *taels*, or a little more than £80,000. At this time the Governor of Nagasaki also took every precaution to prevent the imports from exceeding the stipulated value.

* *Op. cit.*, p. 274, *et seq.*

The Chinese traders had the right of disposing of goods at Nagasaki to double that amount. But they were otherwise as jealously watched as the Dutch themselves, in punishment of their contraband traffic in crosses and Catholic devotional works. The commercial relations of the industrious land of the Rising Sun with the outer world had been altogether reduced to exchanges of the annual value of about £240,000. Although Japan is surrounded by islands, islets, and inlets, affording every facility for smuggling, the contraband trade was almost extinguished. Piracy rather than trade became the resource of those daring Japanese mariners who infested the coasts of Formosa and Fokien. Following in the track of those corsairs who during the first centuries of the vulgar era had penetrated into Malaysia and up the Meinam Estuary, and who had supplied the King of Siam with his best troops, the Japanese rovers again appeared in the same waters towards the end of the seventeenth century, when a colony from Nip-pon guarded the approaches of Ayuthia, at that time capital of Siam. Being deprived of the compass, to prevent them from venturing too far on the high seas, the Japanese navigators had for the last three centuries ceased to make distant voyages, and even held aloof from foreigners wrecked on their coasts. On the occasion of the submarine earthquake at Samoda, about a hundred Japanese perished, rather than break the law forbidding them to board European vessels. Two only of the whole number availed themselves of the rope thrown to them by the crew of the Russian ship *Diana*.

Since the opening of the treaty ports in the year 1854 trade has continued steadily to increase from decade to decade, but not from year to year, progress having been temporarily arrested by the civil war of 1868, by the depreciation of paper money, overstocked markets, and other causes. During the twelve years from 1867 to 1880 the commercial operations of the Empire with foreign countries in the six treaty ports of Nagasaki, Hiogo-kobe, Ohosaka, Yokohama, Nihi-gata, and Hakodate, have been far more than doubled.* But compared with the foreign trade of European countries this movement is still far from considerable, scarcely representing much more than eight shillings per head of the whole population. The expectations of many foreign merchants, who flocked to Japan as to a new Eldorado, have accordingly been disappointed. Possessing in the country itself most of the produce and manufactured wares required for the local demand, the Japanese import from abroad only what is absolutely indispensable for their wants. In exchange for their teas, raw silks,† camphor, cocoons, fans, and other fancy articles, they take from Europe and America nothing but woollen and cotton woven fabrics, hardware, and a few other manufactured goods. Opium is specially excluded by international treaties, and all importers of this drug are liable to capital punishment. The sugar and rice taken from China are paid for chiefly by "sea cabbage," which is so highly appreciated by the Southern Chinese, and by ginseng, from the upper valley of the Sinano River.

* Foreign trade of Japan:—

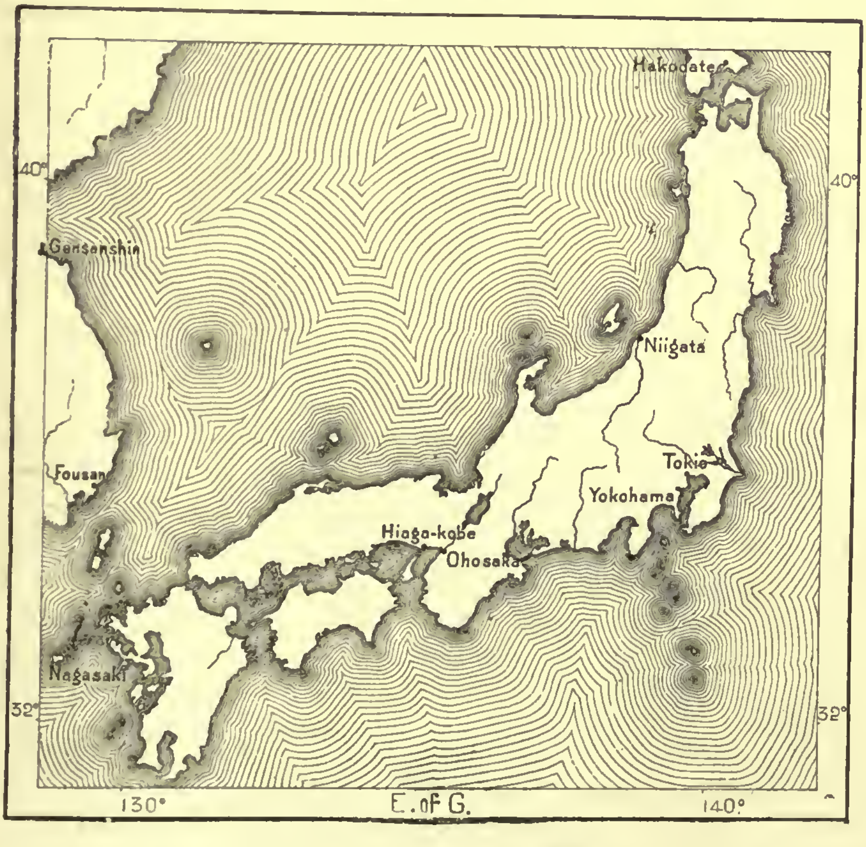
	Imports.	Exports.	Total.
1867	£3,484,000	£2,648,000	£6,132,000
1880	7,944,000	6,020,000	13,964,000

† Silk exported from Japan in 1878: £2,180,000
Tea " " " 1877: 900,000

During the last few years the Japanese importers have been introducing large quantities of cotton yarns, which are employed in the families in the production of fabrics of a more substantial character, as well as more in accordance with the national taste than the slop goods from the Massachusetts and Lancashire mills. In certain inland districts every house has its loom, which is worked by the women, while the men are engaged in tillage or gardening. Large spinning mills and printed calico and cloth factories have also been recently established, in order to emancipate Japan from the monopoly hitherto enjoyed by the English manufac-

Fig. 213.—Ports open to Foreign Trade.

Scale 1 : 12,000,000.



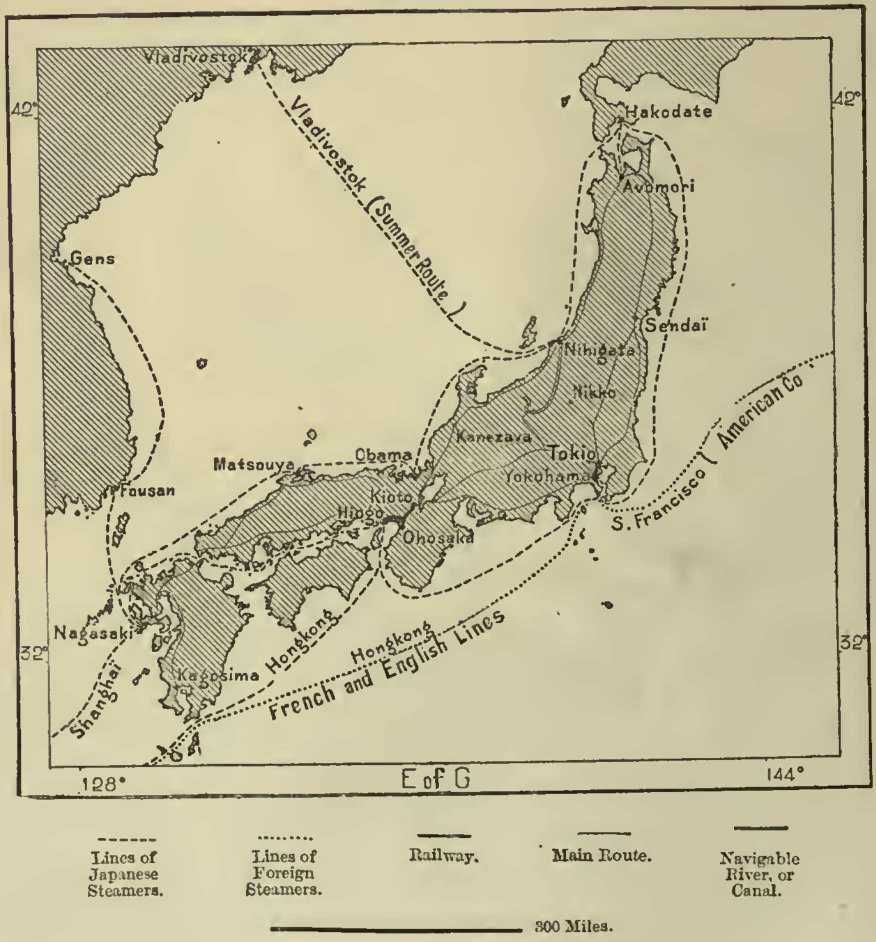
300 Miles.

turers of such goods. For the same purpose of becoming commercially independent of Europe, the Japanese are also engaged in developing the glass and clock industries and in the production of lucifer matches. There is scarcely a single European article that they are unable to imitate, and the Ohosaka craftsmen are now producing fire-proof safes, perfect in all respects down even to the very names of the more famous European patentees. A Japanese house has already opened a branch in Milan, in order to supply the Italians directly with silkworms' eggs, thus depriving foreign brokers of their commissions. England has even received cargoes of bricks consigned from Japan.

Shipping.

The great extent of their sea-board and the obstacles presented to inland communication by the rugged surface of the land, combined with the facilities offered to shipping by the innumerable creeks and inlets, especially on the east side of Hondo, and generally in the southern districts of the archipelago, could not fail to make the Japanese a seafaring people. Small craft too frail to venture beyond the

Fig. 214.—Japanese Lines of Navigation.
Scale 1 : 12,000,000.



inlets are counted by hundreds of thousands, and in the coast villages every family has its boat. Of vessels over 20 feet long, and strong enough to face the open sea, there were numbered over 30,000 in 1872, and before that time the English Admiral Hope, when traversing the Inland Sea, met upwards of 1,500 junks, besides barges and boats. Previous to the revolution of 1868 there were no keeled ships like those of Europe, the mercantile marine consisting exclusively of junks built on

models imposed by the State.* Yet some even of these vessels were over 200 tons burden, and freely navigated all the waters of the archipelago.

All direct commercial relations with foreign lands being interdicted, the large junks which conveyed mandarins and ambassadors to the Liu-kiu Archipelago, Formosa, and China, belonged exclusively to the Government. But since the opening of the treaty ports to European trade the mercantile navy has been rapidly developed. Japan already equals France, while surpassing several European states in the number and tonnage of its steamers, as well as of its whole fleet. The *Barracouta*, which was the first paddle-boat that made its appearance in a Japanese port, had scarcely entered the Nagasaki waters when the natives, eager to learn, asked permission to study the action of the engine, and obtained from the chief engineer a plan and section of the works.

As soon as the Japanese daimios found themselves in direct relations with foreigners they hastened to purchase steamers, with the view of enhancing their prestige in the eyes of their subjects. About two hundred of these vessels were presently seen lying at anchor before the palaces of the daimios. But most of them being crazy old boats, sold at exorbitant prices and manned by inexperienced crews, they soon became useless hulks. The era of real deep sea navigation had not yet begun.

As early as the year 1872 a Japanese vessel had already crossed the ocean, bound for San Francisco, and since that time the flag of the Rising Sun has appeared in the ports of the West. The Mitsubisi Steamship Company, which, however, enjoys a government subsidy, owned in 1876 more than forty vessels of 2,000 tons burden, plying between all the sea-ports of the archipelago, and running as far as Hong Kong, Shanghai, and Vladivostok. This company is gradually monopolising the local carrying trade to such an extent that foreign shipping has notably diminished during the last ten years. The English flag alone has hitherto suffered nothing from this native competition. The Chinese also take a considerable share of the profits derived from the trade of Japan. As brokers and agents they are gradually replacing the Europeans and Americans in all the treaty ports. In every commercial house the situation of *comprador* or commissioner, is invariably occupied by a native of the Middle Kingdom.†

Roads—Railways—Telegraphs.

Although the sea, now lit up by numerous lighthouses,‡ still offers the readiest means of communication, road building has not been completely neglected. Carts

* Japanese mercantile navy in 1879:—

Sailing vessels of European build	714	of	27,550 tons.
Steamers	166	„	42,670 „
Junks averaging 31 tons	18.174	„	745,134 „
Total, exclusive of fishing smacks	19,054	„	815,444 „

† Foreign Shipping engaged in the trade of Japan (1878):—

English vessels	487	of	417,691 tons.
Others	351	„	331,181 „
	838	„	748,872 „

Foreigners residents in the Japanese Treaty Ports (1878):—English 1,170; other Europeans and Americans 1,410; Chinese, 3,028; total 5,505.

‡ Lighthouses in Japan in 1881: 45, besides the harbour lights.

drawn by oxen were till recently found only in the neighbourhood of Kioto, the former capital of the Mikados. Here the roads have been repaired and extended, while elsewhere the routes, for the most part mere mule tracks, are being gradually widened for the *jinriksia* traffic. A European aspect is also being slowly imparted to the four historical main highways, which take their name from the provinces traversed by them. These are the Tokaï-do and Nakasen-do, connecting Tokio

Fig. 215.—View taken on the Tokai-do Highway.

with Kioto, one by the coast, the other over the hills; the Hokroku-do, which follows the western slope, and the Tosan-do, or great northern route.

As regards railways, Japan has hitherto remained satisfied with setting an example to China by constructing the two lines from Yedo to Yokohama, and from Ohosaka to Kioto and Kobe, which are quite as much frequented as the busiest lines in Europe. But since the completion of these works, little has been done beyond building a few short mineral railways. Recently, however, the town of

Ohotz has been connected with Kioto, and in Yeso, Sapporo, capital of the island, now enjoys steam communication with the port of Otarunai. A beginning has also been made with the great project of constructing a trunk line from the northern to the southern extremity of Hondo, through Sendai, Tokio, Nagoya, and Kioto, with branches ramifying to all the large towns on the west side of the island. The first sections to be completed of this scheme are those running from Ohotz to Tsuruga, and from Tokio to Takasaki. All the plant of the new lines will be of local production, except only the locomotives, to be supplied from America.

The progress of the telegraphic and postal services has been far more rapid. The first telegraphic line was opened in 1869, and in 1880 the network comprised altogether about 7,800 miles, including several submarine cables connecting it through Shanghai and Vladivostok with the continental systems. At the same date the postal routes had acquired a total development of 35,000 miles. In the administration of this service, Japan, which was one of the first powers to join the Universal Postal Union, is fully on a level with the leading states of the West, and far in advance of several European countries.

Literature and Public Instruction.

The circulation of newspapers has increased at a surprising rate. The first publication of this sort appeared in the year 1871, and in 1878 there were already 266 periodicals in Japanese and 9 in foreign languages, with a joint circulation of about 29,000,000. During the same year 5,317 new works were published in 9,967 volumes, so that, in this respect, Japan takes the third place amongst the nations of the world, exceeding even Great Britain in the number of its printed works.* Of late years, unscrupulous Japanese editors have begun to compete with those of Europe, by issuing counterfeit editions of English publications. Nearly all the more important European scientific works are also regularly translated into Japanese, and the names of Darwin, Huxley, and Herbert Spenser are household words amongst the educated classes in the Empire of the Rising Sun.

The rapid progress of general literature shows how earnestly the Japanese have taken up the question of public instruction. Education has been placed on a democratic footing, and all, whatever their social position, are now enabled to study the arts and sciences in the public schools. According to the law, elementary schools must be founded in the proportion of one to every 600 souls. The educational machinery, as now organized, is completed by secondary and technical colleges, academies of art, industrial institutions, the university of Tokio, and several scientific high schools. Of these, the first in point of time is the Nagasaki School of Medicine, opened in 1829. Even the prisons are transformed to systematic educational establishments, in which the political criminals usually act as monitors. One of the heaviest items of the national expenditure is that administered by the Board of Public Instruction, while, apart altogether from the action of the State,

* *London and China Express*, N. 4, 1881.

the Japanese people are distinguished beyond all others for their generous zeal in the cause of education. In the five years from 1875 to 1879 the voluntary contributions for this purpose exceeded £1,680,000, exclusive of lands, buildings, books, instruments, and donations of all sorts. Amongst the numerous associations of recent creation, is a society founded especially for promoting education, and which has already no less than 3,000 members in every part of the Empire.

Nevertheless two-fifths of the boys and four-fifths of the girls are still absent from the public schools. Many children, however, are taught the elements at home, and the chief fault hitherto found with the Japanese educational system is that its courses are far too comprehensive for the primary and secondary schools. Instruction loses in depth what it gains in extent. The violent athletic exercises of the Samurai youth have also been indifferently replaced by inadequate gymnastic discipline, much to the detriment of the health of the pupils.

The number of foreign teachers invited by the Japanese Government from Europe and America, to instruct the people in the arts and sciences of the West, is diminishing from year to year.* The salaries also have been gradually reduced to a very modest figure, a circumstance which explains the general substitution of German for English and American professors. Engineers engaged to lay down roads and railways, or to build and work steamships, physicians to whom the management of hospitals had been intrusted, officers invited to instruct the native troops, jurisconsults chosen to draw up the laws, financiers arriving in the hope of manipulating the national funds, were all reduced by the gentle but firm attitude of their hosts to the exclusive position of teachers each in his special province. They were requested, not to apply their talents to their own direct advantage, but to render themselves gradually useless by training pupils destined soon to replace them. In this way New Japan, which aspires to renovate itself by its own forces, was able rapidly to dispense with the services of many burdensome and indiscreet foreigners, who have always been regarded in the light of necessary evils. "As the eagle is contained in the shell, so the future of a people lies within itself," proudly says a modern Japanese writer.

Historic Retrospect—The Revolution.

The reigning family descends traditionally from Zinmu-Tenno, the "Divine Conqueror," son of the god Isanami and great-grandson of the "Sun-Goddess." The Mikado now occupying the throne is supposed to be the one hundred and twenty-third emperor bearing the three divine insignia of the mirror, sword, and seal. For the dynasty of the Sun, whose emblem is the chrysanthemum, suggestive in its form of the luminous globe encircled by rays, is said to have reigned uninterruptedly for twenty-five centuries and a half, in other words, from the time of Nabuchodonosor or of Tullius Hostilius. The first nine centuries, however, of this dynasty belong exclusively to the legendary epoch, and authentic history dates

* They numbered 705 in 1875.

only from the close of the third century of the Christian era, when the Chinese ideographic writing system was introduced.

Previous to the recent revolution, which changed the form of the governments the authority of the Mikados was little more than nominal. Since the end of the twelfth century they had, so to say, been relegated amongst the gods, and their power was exercised through the medium of a Shogun, who had become the virtual sovereign. When in 1853 the Americans, and after them the Russians, presented themselves to demand the conclusion of a treaty of commerce with the Kingdom of the Rising Sun, the only part taken by the Mikado in the deliberations was to "address fervent prayers from morning to night to the *Kami* and the ancestral shades." Shut up in his palace, or rather his temple, and a complete slave to etiquette, he was allowed neither to tread the ground, expose his person to the open air, nor let the sun shine on his head.

But the Shogun himself was no longer in possession of the supreme authority, which the famous Yeyas, founder of Yedo, had bequeathed to his family at the end of the sixteenth century. Although closely watched by the Government, the imperial feudatories, that is to say, the eighteen great daimios and the three hundred and forty-four lesser daimios, constituted none the less a political estate far more powerful than the official representatives of the sovereignty. When the Shogun, alarmed by the appearance of the American squadron under Commodore Perry, found himself obliged to renounce the traditional policy of the Empire, and authorise foreigners to trade directly with his people and even to take up their residence on Japanese soil, such a radical measure could not fail deeply to affect the opinion of the feudal lords and of the whole Samurai class. So loud became the clamour, that the first time for many centuries outward rumours penetrated into the sacred enclosure of the Mikados. At the instigation of the nobles, the reigning emperor was compelled to intervene and issue orders to the Shogun. Fierce struggles broke out in various places between the aristocratic septs, some siding with the "King of Yedo," others with the Mikado, others again acting still more independently, and taking part, now with one now with the other, according to their caprice or personal feelings. The league of the daimios of Satsma, Toza, and Nagato, always opposed to the free admission of foreigners, acquired the upper hand in 1863, and ordered the Shogun to abrogate the treaties of commerce. But these feudatories had themselves European instructors in their armies, physicians and teachers from the West or the New World in their households, while the strangers also supplied them with guns and ammunition. Accomplished facts could no longer be undone, the barriers of seclusion had been once for all burst asunder, and the social revolution henceforth followed its normal course.

While steps were being taken to call together the Gakziuyin—that is, the general assembly of the Samurai—with a view to the settlement of all urgent internal and external matters, a "cohort of the heavenly wrath" was being formed in the western districts, and foreign vessels penetrating into the Inland Sea were being bombarded by the coast batteries. But not only did the foreigners refuse to withdraw peacefully, but they returned with their fleets, forced the passage of

Simono-seki, and exacted a war indemnity, followed soon after by an extension of their privileges. But although all their demands had to be granted, the Shogun, looked upon as responsible for these humiliations, was compelled to abdicate. After a vain attempt at resistance, he was deprived of all his functions, and the Mikado re-entered into the full possession of the supreme power. The daimios themselves petitioned for the abolition of their privileges, and one of them intrigued for the honour of razing his castle and converting the site into arable land. The feudal system was abolished, together with all class distinctions; the right of receiving instruction was granted to every citizen; marriages were permitted between all social ranks, and plebeians (*hei-min*) were even admitted to the administration. The despised *Etas* were placed on a footing of equality with all other subjects, and the Samurai were obliged to lay aside the two swords by which they had hitherto been distinguished from the populace. Nevertheless the official census still recognises the aristocratic or plebeian origin of the people.* In order to indicate that the accomplished changes were irrevocable, and that the new era of the Meidzi, or "Enlightened Law," was definitely established, the Mikado removed his residence from the sacred city of Kioto to the much larger city of Yedo, in the very heart of the radical circles of New Japan. The last insurrection he had to put down was that of the crews of the imperial navy, who had seized Hakodate and set up an independent republic in that place, on the model of the United States of North America.

In 1869, just one year after the revolution had swept away all the rival powers of the imperial authority, the Mikado himself paid homage to the hitherto unheard-of power of public opinion. In language that had never yet been uttered in Japan, he solemnly promised in presence of his ministers that a deliberative assembly should be summoned to discuss the organic laws, that justice for all alike would henceforth be his guiding principle, and that he would on all occasions have recourse to men of sterling worth and intelligence. These promises, sworn "in the name of the ancestral shades," have not yet been entirely fulfilled, and Japan still awaits the convocation of its constituent assembly. The envoys sent to Europe, in order to study the popular forms of government, reported in favour of the system calculated to insure for themselves the greatest amount of personal influence, and the State has consequently reserved its absolute forms. The press, not even excepting that conducted by foreigners, is regulated by extremely severe laws, which have been aggravated since 1878, and which permit the approval but not the free discussion of imperial measures. Public meetings are not authorised, and the continual watchfulness of the "head of the village," combined with an organised system of espionage, still remains the chief instrument of government.

* Japanese nobles in 1875:—

The Mikado's Family	31 persons.
Kughe and Daimios	2,829 "
Samurai	1,584,568 "
Sotsu Samurai	343,881 "
Jisi Samurai	3,330 "

Administration.

The only representative institution is that of the provincial assemblies, which bears some analogy to the Russian *Zemstvo*, on which it has been modelled. But the electors must belong to the proprietary classes, and pay at least twenty shillings of taxes. None are eligible unless they pay forty shillings, and have resided for three years in the district. The deliberations of the assemblies thus elected are limited to the discussion of the taxes and local expenditure, and the session is limited to one month in the year.

The ministerial department is modelled on that of European constitutional governments. The supreme council is presided over by a Prime Minister, assisted by a Vice-President, and comprises the secretaries of all the chief administrative branches—Interior, Foreign Office, Finance, War, Navy, Education, Board of Works, Justice, Imperial Household, to which has recently been added a Board of Trade and Agriculture. Below the Ministerial Council is the legislative body, which prepares the laws under the presidency of a prince of the blood, and submits its labours to the ministers without further right of intervention. On some special occasions the Government also summons an assembly of the provincial functionaries, to consult them on the question of imposts. But over the deliberations of this body the prefect exercises a power of veto.

In this country, where the communes enjoy merely a fictitious autonomy, although the mayors are elected by the heads of families, the administrative hierarchy comprises altogether seventeen ranks, divided into the three categories of the Shoknin, Sonin, and Hannin. Till recently the Church was connected with the State by means of a public grant, which in the year 1879 amounted to £27,000 for the "temples of the gods." But the expenses of public worship are now left entirely to the devotion of the faithful. The "Colonies," that is, the outlying dependencies of Yeso and the Kurile Islands, were hitherto administered by a special department; but this so-called *Kaitakuzi*, or colonial department, has now been replaced by a company, which is virtually invested with a commercial monopoly.

The ancient laws of Japan, modelled on the Chinese jurisprudence of the Ming and Tsing dynasties, and on the decrees or "Hundred Laws" of Yeyas, have been codified since the revolution of 1868. But while their severity has been greatly mitigated, certain actions, formerly regarded as indifferent, are now subject to penalties. Thus the head of the family has been deprived of the absolute power he heretofore enjoyed over his children, and the formerly widespread practice of selling his female issue can no longer be exercised with impunity. Woman also, whom the ancient jurisprudence regarded as destitute of all rights except when defended by her husband or father, has also now acquired a legal status as a responsible human being. The pillory as well as torture has been abolished, although according to the accounts of foreigners the latter is still practised under the relatively mild form of the lash. Murderers, rebels, highwaymen, and dealers in opium are liable to capital punishment by hanging or beheading, although the courts have seldom occasion to inflict this sentence. Compared with the prisons of

the West, those of Japan are almost empty. In 1873 they contained altogether only 6,465 criminals, amongst whom there were less than 500 women, a proportion relatively ten times less than in European countries.

Some French jurisconsults, invited to Japan in order to study and recast the national laws, prepared a civil and penal code, which the Japanese Government published in 1880 as the laws of the State. But it is to be feared that several of these innovations may have a tendency to disturb the sense of justice in the minds of the people, many acts, such as tattooing and bathing in public, hitherto regarded by them as perfectly harmless, being now treated as criminal. The chief object aimed at by the Government in changing its jurisprudence is to offer such pledges to the foreign powers as may induce them to renounce their privilege of exterritorial

Fig. 216.—The Pillory in Japan before the Revolution.

jurisdiction, and allow their subjects to become amenable to the local authorities. At present all foreigners in Japan depend exclusively on their ambassadors and consuls. But they are strictly forbidden to meddle with the politics of the country, or even to publish Japanese periodicals under pain of imprisonment, fines, or hard labour, inflicted by the consular courts.

For judicial purposes Japan is divided into four circumscriptions, with courts of appeal at Tokio, Sendai, Ohosaka, and Nagasaki, respectively.

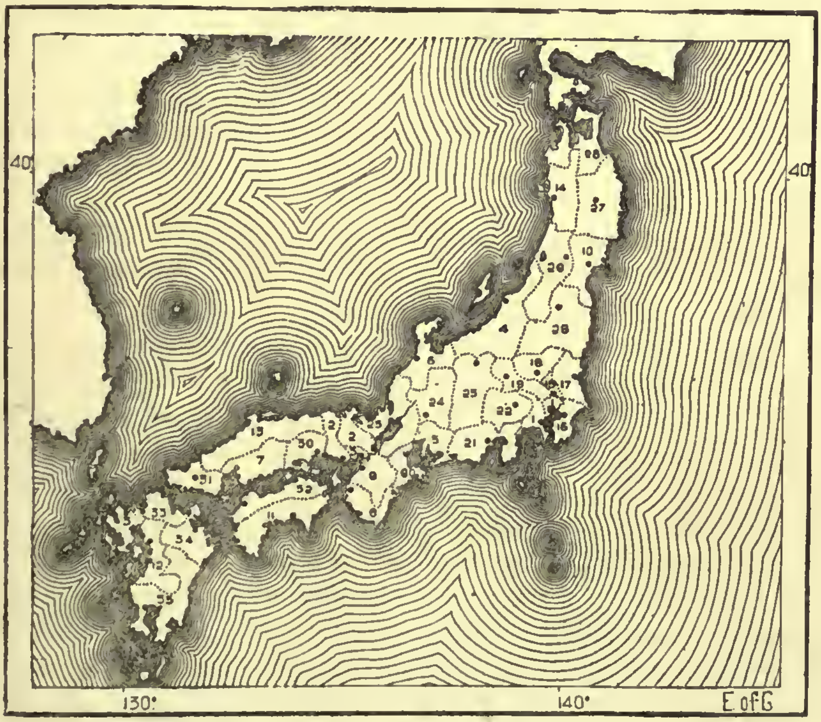
With the exception of a hospital founded by the Dutch physicians at Nagasaki, Japan possessed no public establishments for the treatment of disease previous to the revolutionary epoch. But with its usual zeal for imitating European institutions, the country has begun to found hospitals in many places. At the end of the

year 1878 there were altogether as many as 159, of which 35 had been entirely built by means of voluntary contributions. As in most European states, vaccination has become obligatory.

Finance—Mint—Army and Navy.

The finances of the Empire are not in a very flourishing state. Being anxious to stand on a footing of equality with the European nations, whose systems of credit it was studying, Japan has not been able to resist the temptation of creating a

Fig. 217.—Administrative Divisions of Japan.
Scale 1 : 16,000,000.



300 Miles.

The numbers inscribed on this map correspond to those of the tables.

public debt. Including paper money,* its liabilities amount altogether to upwards of £72,000,000, of which no more than £2,400,000 are due to foreign banks. The pensions of the nobles and the redemption of their privileges represent over £40,000,000 of the whole debt, the annual interest on which now amounts to £3,200,000. Fully two-thirds of the national income are derived from the land tax.

Being protected by the sea, Japan could scarcely stand in need of a standing army. But during the critical times following the revolution, the new government

* Paper money circulating in 1881, £22,600,000.

required to be protected from the possible insurrections of the old military caste of the Samurai, henceforth deprived of its privileges, and only gradually transformed to a class of public functionaries or police agents. An army is now being constituted on the basis of conscription, drilled, equipped, and organised by French officers on the European model. The service, which is obligatory in principle for all Japanese subjects, except the Ainos and inhabitants of the Liu-kiu Archipelago, lasts for three years in the active forces, and three in the reserve. The territorial army with its reserve further comprises all male adults between their twenty-third and fortieth year not in active service. The peace footing amounts altogether to 35,000 men of all arms, raised in time of war to 50,000 exclusive of the reserve. These forces suffice not only to maintain peace within the Empire, but to defy China and Korea, and even to resist Russia. It is even to be feared that, confident of her strength, Japan may be induced to adopt an aggressive policy against her weaker neighbours. Hitherto, however, the national forces have only been called upon to undertake one foreign expedition to the island of Formosa, on which occasion they distinguished themselves by their perfect discipline. But in the year 1877 they had to repress the terrible Satsma rebellion, which cost them over 30,000 men killed and wounded.

The Empire is divided into six military circumscriptions, Tokio, Sendai, Nagoya, Ohosaka, Hiro-sima, and Kmamoto. Two military schools have been founded at Tokio, and the two chief arsenals are those of Tokio and Ohosaka.

The Japanese navy, which has been organised under the direction of English officers and engineers, consists exclusively of steamships, including several iron-clads. In 1879 it comprised altogether 29 vessels, mounting 149 guns and manned by 4,240 sailors and marines. The chief dockyard is that of Yokoska, near Tokio, and the whole archipelago is divided into the two maritime districts of Tokai, or the "Eastern Sea-board," and Saikai, or the "Western Sea-board."

The ancient political divisions of Japan, still familiar in the mouths of the people, are those of the four *Do*, or main highways. But in order to break with the national traditions, the old provinces have been replaced by *Ken*, or departments, which are again subdivided into *Kohori*, or districts. Formerly the province of Kinai constituted the personal domain of the Mikado, to whom its revenues were specially assigned.

A complete list of the administrative departments will be found in the statistical tables.

STATISTICAL TABLES.

CHINESE EMPIRE.

	Area in sq. miles.	Estimated population, 1880.
China proper	1,556,000	350,000,000
Korea	115,000	8,000,000
Manchuria	380,000	12,000,000
Mongolia	1,350,000	4,000,000
Tibet	650,000	6,000,000
Kuku-nor and Tsaidam	120,000	150,000
Kashgaria	250,000	1,000,000
Zungaria	120,000	300,000
Kulja	26,000	150,000
Total	4,567,000	381,600,000

Estimate of the Population of the Chinese Empire according to Races.

Chinese Proper	335,000,000
Si-fan, Man-tze, Miao-tze, Lolo	20,000,000
Koreans	8,000,000
Manchus	8,000,000
Tibetans	5,500,000
Mongolians	4,000,000
Tanguts, Sok-pa, and Hor-pa	250,000
Kashgarians	750,000
Kirghiz	30,000
Tarenchi, Dungans, Solons, and Sibos	60,000
Europeans and Sundries	10,000
Total	381,600,000

CHINA PROPER.

Provinces.	Area in square miles.	Pop. 1842.	Chief Prefectures (Fu).
Pechili	57,260	36,879,838	Shuntien (Peking); Paoting; Shunte; Hokian; Kwanping; Siwanhoa; Taiming; Tientsin; Chingte; Chingting; Yungpina.
Shantung	53,762	29,529,877	Tsinan; Laichew; Uting; Tsingan; Tengchew; Tungchang; Tsaochew; Tsinchew; Yenchew; Yichew.
Shansi	65,949	17,056,925	Taiyuan; Fonchew; Lungan; Ningwu; Pingyang; Puchew; Siping; Tatung; Taechew.
Honan	66,913	29,069,771	Changte; Chingchew; Kaifung; Honan; Hoaiking; Juning; Kweite; Nanyang; Weihwi.
Kiang-su	40,138	39,646,924	Nanking; Hoaingan; Sungkiang; Suchew; Changchew; Chingkiang; Yangchew.
Nganwhei	53,980	36,596,988	Nganking; Fengyang; Hweichew; Luchew; Ningkwo; Taiping; Chichew; Yingchew.
Kiang-si	68,875	26,513,889	Nanchang; Fuchew; Yaochew; Swichew; Kanchew; Kienchang; Kingan; Kinkiang; Kwangsin; Liukiang; Nangan; Nank'ang; Yuenchew.
Fokien	45,747	22,799,556	Fuchew; Chaowu; Hinghoa; Kienning; Taipe; Taiwan; Changchew; Tswanchew; Tingchew; Yongping.
Che-kiang	35,659	8,100,000	Hangchew; Shaohing; Huchew; Kihsing; Kinhoa; Kuchew; Ningpo; Wenchew; Taichew; Chuchew; Yenchew.
Hupeh	69,459	28,584,564	Wuchang; Hanyang; Shinan; Hoangchew; Hingyang; Nganlu; Chingchew; Tengan; Ichang; Yunyang.
Hunan	83,200	20,048,769	Changsha; Hengchow; Paoking; Changte; Chenchew; Yochew; Yuanchew; Yungchew; Yungshan.
Shen-si	81,192	10,309,769	Singan; Fenghiang; Hanchung; Hingan; Yulin; Tungchew; Yengan.
Kan-su	259,520	19,512,716	Lanchew; Kanchew; Kingyang; Kungchang; Liangchew; Ninghia; Pingliang; Sining.
Sechuen	184,997	35,000,000	Chingtu; Shunking; Kiating; Kweichew; Lungan; Ningyuen; Paoning; Switing; Suchow; Chungcheng; Tungchwen; Yachew.
Kwangtung	90,219	20,152,603	Canton; Shaochew; Hwichew; Kaochew; Liechew; Lienchew; Chaohing; Shuochew; Kuingchew.

CHINA PROPER—(*continued*).

Provinces.	Area in square miles.	Pop. 1842.	Chief Prefectures (Fu).
Kwang-si . . .	81,200	8,121,327	Kweilin; Kingyuan; Liuchew; Nanning; Wuchew; Pinglo; Socheng; Sunchew; Swen; Taiping; Chen-gan.
Yunnan . . .	122,524	5,823,670	Yunnan; Shunning; Kaihoa; Kiutsing; Kwangnan; Likiang; Lingan; Puol; Tali; Chaotung; Ching-kiang; Chu'hiung; Tungchwan; Yungchang.
Kweichew . .	64,554	5,679,128	Kweiyang; Shikien; Hingyi; Liping; Nganshun; Suchew; Sunan; Tating; Chenyuan; Tungjen; Tuyun; Tsunyi.
Hainan Island .	14,500	2,000,000	
Formosa Island .	15,000	2,500,000	
Total of China Proper . .	1,554,614	404,946,514	

OFFICIAL RETURNS OF THE POPULATION OF CHINA PROPER AT VARIOUS DATES.

1711	28,605,000	1812	362,447,000
1753	103,050,000	1842	405,000,000
1792	307,467,000	1880	350,000,000

CHIEF TOWNS OF CHINA PROPER.

Province	Town	Population
PECHILI.	Tientsin	920,000
	Peking	500,000
	Kalgan	200,000
	Paoting	150,000
	Tungchew	100,000
	Siwan-hoa	90,000
	Peitang	20,000
	Chingting	10,000
SHANTUNG.	Wei-hien	250,000
	Tengchew-fu . . .	230,000
	Tsinan-fu	200,000
	Che-fu	120,000
	Tsingchew	70,000
	Yenchew-fu	60,000
	Kiaochew	60,000
	Laiyang-fu	50,000
	Taingan-fu	45,000
	Poshan	35,000
	Kinfao	25,000
	Tsimi	18,000
SHAN-SI.	Tiayuan-fu	250,000
	Yuenching	90,000
	Tungkwan	70,000
	Pingyao-hien . . .	60,000
	Chi-hien	30,000
	Hiewkao	22,000
	Pingdingchew . . .	20,000
	Pingyang-fu . . .	15,000
SHEN-SI.	Singan-fu	1,000,000
	Hanchung-fu . . .	80,000
KAN-SU.	Lanchew-fu	500,000
	Tsingchew	160,000
	Sining-fu	60,000
	Pingliang-fu . . .	60,000
	Kunchew	50,000
SECHUEN.	Chingtu-fu	800,000
	Chungcheng-fu . . .	700,000
	Suchew-fu	300,000
	Batang	3,000
HUPEH.	Hankow, with Wu-chang, and Han-yang . .	1,500,000
	Ichang	30,000
HUNAN.	Siangtan-fu	1,000,000
	Changcha	300,000
NGANWHEI.	Wuhu	92,000
	Nganking	40,000
KIANG-SU.	Shanghai	600,000
	Suchew	500,000
	Yangchew	360,000
	Chingkiang	170,000
	Nanking	130,000
KIANG-SI.	Hukow	300,000
	Kiukiang	50,000
CHE-KIANG.	Hangchew-fu . . .	800,000
	Shaohing	500,000
	Lanki	200,000
	Wenchew	170,000
	Ningpo	160,000
	Huchew	100,000
	Yuyao	65,000
	Tsekye	60,000
	Kiuchew	50,000
	Tinghai	35,000
FOKIEN.	Fuchew-fu	600,000
	Changchew	500,000
	Liangkiang	250,000
	Yungping	200,000
	Tsongan	100,000
	Amoy	88,000
	Nganhai	60,000
KWANG-SI.	Wuchew	200,000
KWANGTUNG.	Canton	1,500,000
	Fachan	500,000
	Shuhing	200,000
	Tungkung	120,000
	Shihlung	100,000
	Swatow	28,000
	Sainan	20,000
	Pakhoi	15,000
	Lienchew	12,000
YUNNAN.	Yunnan-fu	50,000
	Chaotung	50,000
	Tali-fu	23,000
HAINAN.	Kiungchew	200,000
	Lohui	80,000
	Tingan	60,000
	Hoi-how	10,000
FORMOSA.	Taiwan-fu	70,000
	Tamshui	65,000
	Chang-hoa	60,000
	Sinchew	40,000
	Mengka	40,000
	Tangkang	10,000
	Kelung	3,000

Number of Chinese settled Abroad.

Russian Manchuria (1869)	10,580
Japanese Empire (1879)	3,028
United States (1881)	105,725
British North America	12,850
Peru, Brazil, Cuba	195,000
Guiana, West Indies	16,500
Sandwich Islands (1881)	14,500
Other Pacific Islands	20,000
British India, Mauritius, South Africa	19,000
Australia (1880)	44,220
Philippines	250,000
Dutch East Indies	325,585
Malacca and Straits Settlements	170,000
Annam, French Cochin China (1880)	152,200
Siam, Camboja, Burma	1,620,000

Foreign Residents in China.

	Commercial Houses	Residents
English	229	2,070
American	31	469
German	64	364
French	20	228
Russian	16	79
Japanese	2	61

Yield of the Chinese Coal Mines (1878).

Shan-si	1,700,000 tons.
Hunan	600,000 „
Shantung	200,000 „
Pechili	150,000 „
Other Provinces	350,000 „
Total	3,000,000 „

Silk exported (1876)	£9.500,000
Tea „ (1878)	9,355,000
Opium imported (1879)	11,000,000
Cottons „ „	7,600,000
Linens „ „	1,486.000
Metals „ „	1,237,000

Total Foreign Trade.

	Imports.	Exports.
1844	£5,400,000	£2,900,000
1855	11,465,000	15,344,000
1879	24,668,000	20,500,000

British exchanges with China (1879) £36,000,000

Average trade with British Empire:—92 per cent. of all the imports; 74 per cent. of all the exports.

Shipping Returns (1880).

	Vessels.	Tonnage.
British	12,397	9,606,156
Chinese	5,335	4,699,255
German	1,501	632,044
America	1,070	287,369
French	128	150,207
Japanese	128	138,000
Sundries	709	162,000

Gross Foreign Trade of the 19 Chinese Treaty Ports.

1870	£35,250
1880	46,278,000

Trade of Tient-sin (1879).

Imports: £6,900,000; exports: £470,000.
Russian transit trade, £1,080,000.

Shipping	British	194,580 tons.
	Chinese	263,950 „
	American	25,475 „
	Sundries	37,950 „

Trade of Che-fu (1879): £4,200,000.
Shipping „ 1,376 vessels of 804,000 tons.

Foreign Trade of I-chang.

1878	£20,000
1880	600,000

Trade of Hankow.

Tea shipped at Hankow (1880): 111,000,000 lbs.; value £4,200,000.

Brick tea prepared at Hankow for the Russian market (1880), 26,300,000 lbs.

Shipping of Hankow (1879):—

1,320 vessels of 733,835 tons, of which

British	474 „	402,965 „
Chinese	658 „	302,000 „

Total exchanges of Hankow:—

1878	£9,264,000
1879	11,300,000

Foreign trade of Wuhu (1879): £1,100,000.

Trade of Shanghai (1879).

Imports.	Exports
£19,634,000	£17,423,000

Tea exported from Shanghai (1879):—

To England	38,593,560 lbs.
United States	20,830,000
Russia	1,772,000

Silk exported from Shanghai (1879):—

To England	20,240 bales.
France	16,172
America	5,390
India	2,075
Switzerland	1,038

Shipping of Shanghai (1879).

	Vessels.	Tons.
British	1,974	1,309,505
Chinese	1,581	1,078,588
Japanese	157	138,208
French	62	121,731
American	271	93,884
German	192	90,049
Total with Sundries	4,376	3,062,682

Trade of Wenchew (1880) . . £122,000
Shipping „ „ . . 19,780 tons.

Trade of Fuchew (1879).

Imports.	Exports.
£1,741,000	£3,200,000

Shipping . . . 577 vessels of 418,083 tons.
Of which British . 433 „ 345,569 „
Tea exported (1879), 92,000,000 lbs.

Trade of Amoy (1879).

Imports.	Exports.
£2,850,000	£1,840,000

Sugar exported (1880), 18,000 tons.

Shipping (1879) . 1,540 vessels of 892,000 tons.
Of which British . 1,060 „ 720,000 „
Emigrants from Amoy (1879), 20,512
Immigrants to „ „ 20,067

Trade of Swatow (1879).

Exchanges, £5,482,000.
Shipping, 566,250 tons.

Trade of Canton (1879).

Imports.	Exports.
£2,560,000	£4,452,000

Of which British about 65 per cent.

Shipping of Whampoa (1879).

	Vessels.	Tonnage.
British,	1,459	1,451,750
Total	1,892	1,664,000

Trade of Pakhoi (1880), £370,000.

Trade of Kiungchew (Hainan).

Imports (1879).	Exports (1879).
£282,000	£188,000

Shipping (1880), 212,724 tons.

Trade of Taiwan, Formosa (1879).

Imports.	Exports.
£493,000	£586,000

Shipping, 104,375 tons.

Trade of Tamshui, Formosa (1880), £1,074,000.

Shipping (1879), 294 vessels of 88,828 tons.
Tea exported (1880), 14,625,000 tons.

Shipping of Hong Kong (1879), 4,000,000 tons.

Trade of Macao (1878), £500,000.

Tea exported (1878), £252,000.
Receipts from the lotteries and gambling-houses, £81,000.

Imperial Budget of China (1876).

Land tax	£5,630,000
Grain and fodder tax	4,100,000
Likin, or local charges on merchandise	6,260,000
Foreign customs	4,690,000
Salt tax	1,564,000
Sale of public offices, &c.	2,180,000
Sundries	438,000
Total Revenue	£24,862,000

Public Debt (1878), £2,232,000.

Army.

Manchu Regulars	270,000
Chinese Militia, &c.	800,000
Total	1,070,000

TIBET.

	Area in square miles.	Estimated population.
Tibet Proper	650,000	6,000,000
Kuku-Nor and Tsaidam	120,000	150,000

Chief Towns,

	Estimated Population.*
Lassa	15,000
Shiga-tze and Tashi-lumpo	14,000
Chetang	13,000
Gyanze	12,000
Chona-jong	6,000
Kirong	4,000
Shakia-jong	3,000

Trade of Tibet with India (1879).

Exports to India	£150,000
Imports from India	14,600

Annual import of brick tea from China, £350,000.

KASHGARIA, OR CHINESE TURKESTAN.

Area in square miles.	Population.
250,000	1,000,000

Chief Towns.

Yarkan	60,000
Kashgar	50,000
Khotan	40,000
Sanju	35,000
Aksu	20,000
Kiria	15,000
Yangi-hissar	10,000
Yargalik	10,000
Korla	6,000

MONGOLIA.

	Area in square miles.	Estimated Population.
Outer Mongolia	1,350,000	2,000,000
Inner Mongolia		2,000,000

Chief Towns.

North Mongolia.	Urga	30,000
	Kobdo	3,000
	Uliasutai	3,000
	Khailar	3,000
	Kerulen	1,500
Mongolian Kansu.	Urumchi	15,000
	Turfan	10,000
	Hami	6,000
South Mongolia. Attached to Shan-si.	Kuku-khoto (Kweihua-cheng)	30,000
	Dolon nor (Lama-miao)	30,000
Inner Mongolia. Attached to Pechili.	Jehol (Chingte-fu)	40,000
	Paku (Pingchwen-hien)	20,000
	Hada (Chifeng-hien)	10,000

ZUNGARIA AND KULJA.

	Area in square miles.	Population.
Zungaria	120,000	300,000
Kulja	26,000	150,000

Chief Towns.

Old Kulja	15,000
Suidum	4,000
Chuguchak	4,000
Manas	3,000
Shikho	2,500
Bulun-Tokhoi	1,700
Tultu	1,700
Karkara-ussu	1,500 (?)

* Exclusive of lamas and Chinese garrison troops.

MANCHURIA.

Area in square miles. 380,000 — Population. 12,000,000

CHIEF TOWNS.

Province	Town	Population
Province of Tsitsikhar.	Tsitsikhar	30,000
	Aigun	10,000
	Mergen	5,000
Province of Liaotung.	Mukden	180,000
	Ying-tze	40,000
	Takushan	35,000
	Faku-min	12,000
Province of Girin.	Girin	120,000
	Ninguta	60,000
	Asheho	40,000
	Kaiyuen	35,000
	Bedune (Pituna) . . .	30,000
	Swangchang . . .	30,000
	Singmintön . . .	30,000
	Tienchwang-tai . . .	25,000
	Lalin	20,000
	Ti'ling	20,000
	Sansing	15,000

KOREA.

Area in square miles. 115,000 — Estimated population. 8,000,000

Provinces.	No. of Houses.	Chief Towns.	No. of Districts.
Piengtan-to . .	239,400	Piengyang . . .	42
Hamkieng-to . .	103,200	Hamheng . . .	24
Hoanghai-to . .	138,000	Hai-tsiu . . .	23
Kangwen-to . .	93,000	Wen-tsiu . . .	26
Kiengkei-to . .	186,600	Hanyang (Seul) . .	36
Tsongtsieng-to . .	244,080	Kong-tsiu . . .	54
Kiengsang-to . .	421,500	Taiku	71
Tsienla-to . . .	290,550	Tsien-tsiu . . .	56
	1,566,330		332

JAPAN.

	Islands.	Area in square miles.	Population, 1874.
Nip-pon.	Hondo	90,500	25,478,834
	Kiu-siu	14,200	4,986,613
	Shi-koku	7,100	2,484,538
	Sado	24	362,177
	Tsu-sima	17	
	Awaji	12	
	Oki	8	
	Iki	3	
	Islets in Nip-pon . . .	60	
	Yeso	35,700	144,690
	Kuriles	4,900	
	Liu-kiu Islands . . .	830	167,073
	Bonin Islands . . .	38	69
	Total Japanese Empire .	153,384	33,623,373

Total population (1880), 35,925,313; per square mile, 230.

ADMINISTRATIVE DIVISIONS.

Departments (Fu and Ken).	Population, 1880	Chief Towns.
Tokoi-fu	957,121	Tokio
Saikio-fu	822,098	Kioto
Ohosaka-fu	582,666	Ohosaka
Kanagava-ken	757,462	Yokohama
Hiogo-ken	1,391,928	Kobe
Nagasaki-ken	1,190,335	Nagasaki
Nihigata-ken	1,546,338	Nihi-gata
Aitsi-ken	1,303,812	Nagoya
Isikava-ken	1,833,778	Kanazava
Hirosima-ken	1,213,154	Hiro-sima
Vakayama-ken	597,728	Vaka-yama
Sakahi-ken	957,407	Sakahi
Miagi-ken	619,120	Sendai
Kotsi-ken	1,179,247	Kotsi
Kmamoto-ken	986,695	Kmamoto

Administrative Divisions—(*continued*).

Departments (Fu and Ken).	Population, 1880.	Chief Towns.
Simane-ken	1,037,260	Matsuye
Akita-ken	618,833	Akita
Saitama-ken	933,955	Urava
Tsiba-ken	1,103,292	Tsiba
Ibaraki-ken	894,376	Mito
Totsigi-ken	581,358	Totsigi
Gunba-ken	581,556	Maye-basi
Miye-ken	842,112	Ano-tsu
Sidzwokao-ken	950,022	Sidzwokao
Yamanasi-ken	395,447	Kofu
Siga-ken	738,211	Gobessio
Gifu-ken	839,613	Imaidzmi
Nagano-ken	1,000,411	Zenkozi
Fukusima-ken	808,937	Fuku-sima
Ivate-ken	591,881	Morioka
Avomori-ken	475,413	Avomori
Yamagata-ken	682,929	Yama-gata
Okayama-ken	1,000,570	Oka-yama
Yamagutsi-ken	877,614	Yamagu-tsi
Yeshime-ken	1,438,895	Matsu-yama
Fukuoka-ken	1,097,215	Fukuoka
Oita-ken	731,964	Oita
Kagosima-ken	1,270,463	Kago-sima
Okinava-ken	310,545	Siuri (Liu-kiu Islands)

Circuits and Provinces.

Circuits.	Area in square miles	Population, 1876.	Provinces.
Kinai-do	2,967	2,094,354	Yama-siro; Yamato; Kavatsi; Idzmi; Setz.
Tokai-do	15,478	7,710,282	Sagami; Idz; Kahi; Suruga; Tootomi; Mikava; Owari; Ise; Sima; Iga; Muzasi; Ava; Kadzusa; Simosa; Hitatsi.
Tosan-do	40,478	7,279,408	Omi; Mino; Hida; Sinano; Kodzke; Simodzke; Ivaki; Ugo; Ivasiro; Rikuzen; Muts; Uzen.
Hokuroku-do	6,785	3.448,199	Vakasa; Etsizen; Kaga; Noto; Etsitsiu; Etsigo; Sado.
Sanin-do	6,490	1,660,755	Tanba; Tango; Tazima; Hoki; Inaba; Idzmo; Ivami; Oki.
Sanyo-do	8,407	3,648,170	Harima; Mimazaka; Bizen; Bitsiu; Bigo; Aki; Suvo; Nagato.
Nankai-do	8,784	3,375,724	Kihi; Avadzi; Ava; Sanuki; Iyo; Toza.
Sakai-do	16,795	5,280,740	Tsikuzen; Tsikugo; Buzen; Bugo; Hizen; Higo; Hiuga; Ohosmi; Satsma; Iki; Tsu-sima.
Hok'kai-do (Yeso and Kuriles)	36,270	149,554	Osima; Siriben; Isikari; Tesiho; Kitami; Iburi; Hidaka; Tokatsi; Kusiro; Nemoro; Tsi-sima.
9 Circuits.	147,582	34,647,486	84 Provinces.

Chief Towns. Population (1873).

	Town	Population
Yeso.	Hakodate	28,800
	Saru	18,000
	Yezasi	1,730
	Matsmai	16,300
	Sapporo	8,000
	Otaru	5,400
Circuit of Kinai-do.	Ohosaka	290,000
	Kioto	240,000
	Hiogo-kobe	41,000
	Sakahi	39,000
	Fusimi	23,000
	Nara	21,000
	Kori-yama	15,000

	Town	Population
Circuit of Tosan-do.	Sendai	52,000
	Akita	38,000
	Hirosaki	32,900
	Sionai	25,000
	Yonezava	25,000
	Hikone	24,400
	Morioka	22,000
	Vakamats	21,500
	Takasaki	20,000
	Sakata	18,600
	Yama-gata	18,000
	Ohotz	17,925
	Kanuma	15,060

CHIEF TOWNS. POPULATION (1873)—(*continued*).

Circuit	Town	Population
Circuit of Tosan-do—(*continued*).	Mayebasi	15,000
	Utsnomia	15,000
	Matsumoto	14,300
	Taka-yama	13,000
	Nihonmats	11,000
	Avomori	11,000
	Gifu	11,000
	Iaonomaki	10,400
	Ogaki	10,200
	Nosiro	10,000
	Hatsiñoye	10,000
Circuit of Hokuroku-do.	Kanezava	110,000
	To-yama	45,000
	Fukuyi	39,000
	Nihi-gata	34,000
	Takata	27,500
	Nagaoka	24,000
	Takaoka	24,000
	Sin-minato	18,900
	Sibata	18,300
	Odziya	15,000
	Kasivazaki	14,000
	Aigava	13,000
	Tsuruga	11,500
	Murakami	10,000
	Uvota	10,000
	Komats	10,000
	Ohono	10,000
	Sakayi	10,000
Circuit of Sanin-do.	Matsuye	37,000
	Tottori	20,800
	Yonago	10,250
Circuit of Sanyo-do.	Hiro-sima	75,000
	Hagi	45,400
	Oka-yama	33,000
	Himedzi	25,000
	Simono-seki	18,700
	Fuku-yama	17,700
	Tsu-yama	15,500
	Onomitsi	15,000
	Akasi	14,500
	Yamagutsi	11,600
	Ivakuni	10,000
Circuit of Tokai-do.	Tokio (1880)	1,037,000
	Nagoya	130,000
	Yokohama	65,000
	Sidzuoka	32,000
	Yamada	28,000
	Tau	23,000
	Mito	20,000
	Diosi	18,000
	Kuana	18,000
	Kofu	16,000
	Numadz	16,000
	Atsuda	15,200
	Okasaki	13,000
	Odovara	13,000
	Uyeno	12,500
	Hamamatz	11,000
	Fnbasi	9,500
Nankai-do.	Vaka-yama	62,000
Sikok.	Toku-sima	48,900
	Kotsi-ken	39,800
	Takamats	32,800
	Mastu-yama	26,150
	Marugame	14,000
	Uvazima	12,200
	Imabar	12,000
Kiu-siu.	Kmamoto	45,000
	Fukuoka and Hakata	42,000
	Kaseda	31,600
	Nagasaki	30,000
	Kago-sima	27,300
	Kago	24,900
	Saga	21,700
	Kurume	21,000
	Usuki	18,860
	Sima-bara	18,700
	Idzmi	18,600
	Fukabori	17,800
	Kokubu	17,150
	Miyasaki	12,000
	Nakats	11,600
	Akune	10,900
	Hirado	10,600
	Kadziki	10,000

TRADE RETURNS.

Year.	Imports.	Exports.	Total.
1865	£2,800,000	£3,690,000	£6,490,000
1869	3,470,000	2,290,000	5,760,000
1873	5,480,000	4,130,000	9,610,000
1878	6,660,000	5,250,000	11,910,000
1880	7,250,000	5,510,000	12,760,000

FOREIGN TRADE (1880).

	Imports.	Exports.
Great Britain	£4,645,000	£787,000
British Possessions	420,000	52,000
China	1,183,000	1,128,000
France	762,000	1,140,000
United States	594,000	2,240,000
Germany	335,000	6,600
Italy	31,000	100,000
Sundries	116,000	36,000

Shipping.

Year.	Tonnage.	Of which British.
1865	166,872	99,649
1869	1,069,398	410,105
1873	1,039,407	234,459
1878	749,529	417,691

Japanese Steam Tonnage (1880)	36,543 tons.
,, Junk ,, ,,	468,750 ,,
,, Fishing Craft ,,	433,000 boats.

Chief Staples of Trade (1879).

Imports.	
Yarns	£1,510,000
Cottons	1,035,000
Woollens	1,158,000
Raw Cotton	614,000
Metals	377,000
Exports.	
Silk and Cocoons	1,844,000
Tea	882,000
Rice	928,000
Dried Fish	206,000
Coal	171,000
Porcelain (1880)	100,000

Foreign Trade of Hakodate (1880).

Imports.	Exports.
£45,000	£150,000

Foreign Trade of Yokohama (1880).

Imports.	Exports.	Shipping.
£5,190,000	£3,710,000	1,522 vessels.

Foreign Trade of Ohosaka and Hiogo-kobe (1880).

Imports.	Exports.	Shipping.
£1,750,000	£1,160,000	237,000 tons.

Foreign Trade of Nagasaki (1880).

Imports.	Exports.	Shipping.
£280,000	£487,000	£522,000 tons.

Trade of the Liu-kiu Islands (1880).

Imports.	Exports.
£52,800	£26,650

Foreign Residents in Japan.

	British.		Others.	
Year.	Firms.	Residents.	Firms.	Residents.
1874	155	1,170	310	3,961
1878	92	1,067	191	4,438

Japanese Agricultural Returns (1880).

Land under timber	60,000 sq. miles.
Arable land	50,000,000 acres.
Land under cultivation	12,530,000 ,,
,, ,, rice	6,800,000 ,,
,, ,, other crops	4,250,000 ,,
Rice crop	205,000,000 bushels.
Barley crop	60,000,000 ,,
Wheat crop	38,000,000 ,,
Tea crop	90,000,000 lbs.
Sorghum sugar crop	65,000,000 ,,
Tobacco crop	90,000,000 ,,
Pulse crop	50,000,000 bushels.
Silk, total yield	£11,000,000
Silk and cocoons exported	£2,310,000

Japanese Mineral Returns (1879).

Gold raised	£46,000
Silver ,,	90,000
Copper ,,	287,000
Lead ,,	5,000

Japanese Mineral Returns (1879)—(*continued*).

Iron ,,	21,000
Coal ,,	342,000
Petroleum raised	63,500 gallons.
Coal-fields of Yeso	150,000,000,000 tons.
Total yield of minerals (1881)	£1,000,000

Japanese Budget (1880).

Income.	
Direct taxes	£9,075,000
Indirect ,,	1,672,000
Customs ,,	477,000
Miscellaneous	592 000
Expenditure.	
Interest on the Debt	£4,638,000
Civil List and Pensions	423,000
Army and Navy	2,150,000
Education	250,000
Public Works	224,000
Civil Service, &c.	4,500,000

Total Revenue and Expenditure, balanced (1880), £11,130,000.
National Debt, £72,070,000.
Chief source of Revenue, the Land Tax, 87 per cent. of the whole.
Army.—Peace footing, 35,560; War, 50,230; Reserve, 20,000.
Navy.—Ships, 23; Men, 4,242; Guns, 149
Police.—23,334.
Railways open (1881), 76 miles.
Passenger traffic (1879), 3,000,000.
Railways projected, 500 miles.

Postal Returns (1879).

Letters forwarded, 55,775,206.
Money orders issued, 249,429—value £740,876.
Post Offices, 3,927; Mail routes, 36,052 miles.
Telegraph lines, 3,344 miles.
Telegraphic dispatches, 1,045,442.
Submarine cable system completed, 1880.

Public Instruction.

Elementary schools (1879), 25,459.
Teachers, 59,825; Pupils, 1,594,792 boys; 568,220 girls.
Middle schools, 389: Attendance, 20,522.
Technical schools, 52: Attendance, 3,361.
University (Tokio): Professors, 56; Students, 710.
Schools teaching English, 25; other languages, 3: Attendance, 1,522.
Foreign teachers in Government employment, 97.

Literature.

Works published during the year ending July, 1879.

Legislation, political economy	543
Educational	470
Geography	454
Philology	313
Mathematics	225
History	180
Religion	107
Novels, poetry, miscellaneous	2.925

Newspapers, 211: Circulation, 29,000,000.

Miscellaneous.

Coinage struck at the Ohosaka Mint (1880), £17,000,000.
Paper Money in circulation (1881), £22,600,000.
Native Christians: Protestants, 7,500; Roman Catholics, 4,000; Greek, 4,000.

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